R E P O R T R E S U M E S

ED 019 017 48 FL 000 707

A COMPARISON OF THE MLA FOREIGN LANGUAGE PROFICIENCY TESTS FOR TEACHERS AND ADVANCED STUDENTS WITH THE MLA FOREIGN LANGUAGE COOPERATIVE TESTS.

BY- PAQUETTE, F. ANDRE AND OTHERS
MODERN LANGUAGE ASSN. OF AMERICA, NEW YORK, N.Y.

REPORT NUMBER BR-6-2619 PUB DATE JUN 66
CONTRACT OEC-6-14-002
EDRS PRICE MF-$0.50 HC-$2.40 58P.

DESCRIPTORS- *ACHIEVEMENT TESTS, *NATIONAL COMPETENCY TESTS, *LANGUAGE TESTS, *LANGUAGE PROFICIENCY, *MEASUREMENT, COMPARATIVE ANALYSIS, SPANISH, FRENCH, GERMAN, STANDARDIZED TESTS, STATISTICAL DATA, STATISTICAL STUDIES, TEST RESULTS, TEST VALIDITY, TESTING PROBLEMS, LANGUAGE TEACHERS, ADVANCED STUDENTS, LANGUAGE SKILLS, EDUCATIONAL RESEARCH, MODERN LANGUAGE ASSOCIATION, EDUCATIONAL TESTING SERVICE, MLA PROFICIENCY TESTS, MLA COOPERATIVE FOREIGN LANGUAGE TESTS, HOFSTRA UNIVERSITY, UNIVERSITY OF ILLINOIS,

THIS STUDY, CONDUCTED BY THE MODERN LANGUAGE ASSOCIATION (MLA) WITH THE ASSISTANCE OF THE EDUCATIONAL TESTING SERVICE, WAS DESIGNED TO DETERMINE WHETHER THE FRENCH, GERMAN, AND SPANISH SKILL TESTS OF THE MLA COOPERATIVE FOREIGN LANGUAGE TESTS AND THE MLA PROFICIENCY TESTS FOR TEACHERS AND ADVANCED STUDENTS MEASURE ALONG A CONTINUUM OR WHETHER THERE IS A SERIOUS GAP BETWEEN THE TWO SETS OF TESTS. THE RESULTS OF THE STUDY, SUMMARIZED IN A SERIES OF 44 GRAPHS AND TABLES COMPRISING THE BULK OF THE DOCUMENT, SHOW THAT THE TWO SETS OF TESTS DO MEASURE ALONG A CONTINUUM AND THAT THERE IS NO NEED FOR A TEST OF INTERMEDIATE DIFFICULTY. THE OVERLAP IS NOT SO GREAT; HOWEVER, AS TO PREVENT THE COMBINED SETS OF TESTS FROM MEASURING STUDENTS AT ALL LEVELS OF ACHIEVEMENT. BRIEF BUT INCLUSIVE DISCUSSIONS OF TEST ADMINISTRATION AT THE UNIVERSITY OF ILLINOIS AND HOFSTRA UNIVERSITY AND OF STUDY DESIGN AND RESULTS ARE INCLUDED. (ST)

ED019017

Appendix H
to BR 2619

FL 000 707

U S DEPARTMENT OF HEALTH EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

A Comparison of The MLA Foreign Language Proficiency Tests for Teachers and Advanced Students with The MLA Foreign Language Cooperative Tests

Modern Language Association of America

A COMPARISON OF THE MLA FOREIGN LANGUAGE PROFICIENCY TESTS FOR TEACHERS AND ADVANCED STUDENTS

WITH

THE MLA FOREIGN LANGUAGE COOPERATIVE TESTS

June 1966

by

MODERN LANGUAGE ASSOCIATION OF AMERICA

F. André Paquette, Project Director
Suzanne Tollinger, Research Assistant

with the cooperation of

EDUCATIONAL TESTING SERVICE

Madeline Wallmark, Statistical Analysis Division

THE UNIVERSITY OF ILLINOIS

Richard E. Spencer, Head, Measurement and Research

HOFSTRA UNIVERSITY

Frederick J. Churchill, Professor of German and Education

FL 000 707

The research reported herein was performed pursuant to a contract with the United States Department of Health, Education, and Welfare, Office of Education, under the provisions of Title VI, Public Law 85-864 as amended, Sec. 602.

THE VERTICAL EQUATING
of the
MLA COOPERATIVE FOREIGN LANGUAGE TESTS
and the
MLA FOREIGN LANGUAGE PROFICIENCY TESTS

In partial fulfillment of its commitments to the United States Office of Education under Contract No. OE 6-14-002, the Modern Language Association of America with the assistance of Educational Testing Service conducted a study of the comparative level of difficulty between the MLA Cooperative Foreign Language Tests and the MLA Foreign Language Proficiency Tests for Teachers and Advanced Students. This report is a summary of the vertical equating of the French, German and Spanish skills tests of the two batteries.

Design of the Study

The tests used in the study were Form MA of the French, German and Spanish Cooperative Tests in the four skills (Reading, Listening Comprehension, Speaking, and Writing) and the corresponding Proficiency Tests, Form A. The tests are listed in Table 1 with their time limits, numbers of items or scorable units, maximum possible raw scores, and converted score ranges. The Reading and Listening Comprehension Tests have four-choice items and are scored for the total number of correct responses. The Speaking and Writing Tests must be graded by professional scorers who mark some of the scorable units as right or wrong and rate the others on a three- or five-point scale. The total score on each of these tests is the sum of the rights plus the sum of the ratings.

The comparable level of difficulty of each pair of tests was to be investigated through a vertical equating process known as the "Case III" method, which is described by F. M. Lord in the Educational Testing Service research bulletin RB 50-48: Notes on Comparable Scales for Test Scores. According to this method, the two tests to be equated are administered to the same group of people, a random half of the examinees taking the tests in one order and the other half in the reverse order. This counterbalancing of the order of administration is designed to eliminate the influence of such effects as practice or fatigue on the equating.

The equating process establishes a linear relationship between the Cooperative Test (X) and the Proficiency Test (Y):

$$Y = A_x X + B_x \qquad \text{or} \qquad X = A_y Y + B_y ,$$

where A_x, B_x and A_y, B_y are conversion parameters.*

Administration of the Tests

Arrangements were made with the University of Illinois for the administration of the tests to students enrolled in the third and fourth semester classes in French, German or Spanish, and with Hofstra University for the administration of the German Reading and Listening Tests to third and fourth semester German students.

For the method of equating used in this study it is usual to counterbalance the order of administration by dividing the total group into random halves by "spiralling" the tests, giving every other individual tests A and B in that order, and reversing the order for the remaining examinees. In this study, however, there were several factors which made a completely random assignment of individual students to equating samples impractical: (1) the limitation imposed by the length of a class period, (2) the unequal time limit for each pair of tests, (3) the nature of the equipment available for administering the Listening Comprehension Tests, and (4) the limited facilities for administering the Speaking Tests. These problems were solved in different ways for the twelve pairs of tests.

The Speaking Tests were administered in a single session for each class section in a language laboratory that was equipped for tape recording at some positions and magnetic disc recording at others. Since each position could be operated independently of the others, the spiralling arrangement was used, and each sample can be considered as a random sample selected from the total group.

---

*For example, in Table 2 the conversion parameters for converting a French Cooperative Listening raw score to the comparable Proficiency raw score are given as: $A_x = 0.6382$ and $B_x = 1.5786$. To convert a Cooperative raw score of 10:

$Y = (0.6382) \times 10 + 1.5786 = 7.9606$, or 8 (comparable raw score on the French Proficiency Listening Test)

The time limits for the Writing Tests were too great to permit administering both tests in a single class period. The French and Spanish students took the tests in two class periods, with one to three days intervening. The German students took both tests in a single session along with the Speaking Tests.

The speaker equipment available for the Listening Comprehension Tests made it necessary to randomize by class rather than individual, but because the number of sections was rather large, this system of sampling was considered satisfactory. The French and German students of the University of Illinois were tested in a two-hour session, taking the Reading and Listening Comprehension Tests of one battery and then the corresponding tests of the other battery. The Spanish students were tested in two class periods with a one week interval between testings. The Hofstra students were tested on Listening Comprehension in one class period and on Reading during their final examination period.

Each of these arrangements for administering a pair of tests may be expected to affect the scores in a special way. When the two tests are administered in a single session, the practice effect is maximized and the scores obtained on the second test taken would, on the average, be higher than one would otherwise expect. When the testing session is long, scores on the last test taken might be adversely affected by the fatigue effect. When the time interval between testings is relatively long, scores on the second test may be affected by the opportunity for students to communicate to each other specific information about the tests.

Results of the Study

The results of the study are summarized in the set of tables and figures appearing at the end of this report. The order in which they appear is given in the index of tables on page 10. For the sake of convenience and brevity the two batteries are referred to as Cooperative, or Coop, and Proficiency, or Prof, and the Listening Comprehension Tests as Listening. In every table Group I is used to designate the subsample that took the Cooperative Test first, and Group II the subsample that took the Proficiency Test first.

Tables 2, 3, and 4 present the summary statistics and conversion parameters for French, German, and Spanish, respectively. For each test in each pair two means and two standard deviations are given for the combined (or total) group. The first mean and standard deviation are based on the scores of the total group taken as a single sample. The second mean and standard deviation, which are in parentheses, have been adjusted to correct for practice or fatigue effect.

Table 5 summarizes the results of the analyses of covariance that were performed in order to evaluate the effects of practice and to determine whether or not the differences between subsamples were significant. In each case the Cooperative Test was used as the predictor and the Proficiency Test as the criterion. The table indicates for each statistic the probability of drawing a pair of samples of the same size from the same population with a larger value of chi-square for that statistic. If the probability P is less than .05, the two samples are considered to be significantly different in regard to that statistic.

Tables 6 through 17 are tables of comparable scores that show the relationship between scores on each pair of tests, for both raw and converted scores, as established for the equating samples used in this study. The Cooperative scores are the reference, with the comparable Proficiency scores computed to one decimal place. In some cases applying the conversion parameters to raw scores at the low end of the Cooperative raw score scale results in negative comparable scores on the Proficiency raw score scale, but it is impossible to obtain a negative score on the Proficiency Test.

Tables 18 through 41 are sets of frequency distributions with the Cooperative and the corresponding Proficiency Test distributions placed on facing pages to facilitate comparisons. The Total Group distributions are based on obtained scores with no correction or adjustment for practice.

Tables 42 and 43 are given here to help describe the equating samples used in this study by comparing them with appropriate norms groups. Table 42 presents a comparison with the second-year college norms groups that took the Cooperative Tests. The information for these groups was taken from the source material for the Booklet of Norms prepared for the Modern Language Association by Educational Testing Service in 1965. It should be

noted here that the Speaking and Writing Tests for the norms groups were scored by a professional staff at Educational Testing Service, while those for the equating samples were scored at the University of Illinois. Table 43 is a comparison with the norms groups that took the Proficiency Tests in the NDEA Foreign Language Institutes from 1961 through 1965. The information for these groups was taken from the source material for the leaflet MLA Interpretation of Scores - MLA Foreign Language Proficiency Tests for Teachers and Advanced Students, which was prepared for the Modern Language Association by Educational Testing Service in 1966. In each table the reference scale is the percentile rank scale for the appropriate norms groups.

Table 44 presents some additional information about the subsamples and shows to some degree how well balanced the subsamples are with respect to language course level, general maturity as indicated by year in college, and language achievement as measured by grade in the language course taken.

Discussion

Before discussing the results of this equating study, it would be advisable to consider some of the problems that are characteristic of any attempt to establish equivalency tables for a pair of tests. In the ETS research memorandum, The Equating of Nonparallel Tests (RM-62-2, Educational Testing Service, January 1962), W. H. Angoff discusses some of the problems and objectionable features inherent in the kind of equating used in this study: the equating of tests of different function. Some of his remarks will be of help in the interpretation of the results of this equating.

In the case of tests of the same function (parallel tests that are intended to be used interchangeably for testing groups drawn from the same population) Angoff points out four main sources of error that are characteristic of a table of equivalent scores: (1) the unreliability* of the measuring instruments, (2) the design of the equating experiment, (3) the choice of samples used to establish the conversion line, and (4) the size of the study sample. But in spite of these errors, according to Angoff it is reasonable " to postulate a unique 'true' line and to consider that errors . . . only cause random departures from this true line."

*A test is unreliable in that it represents a very small sample of all possible test questions that might be used to measure aptitude or skill. Although group performance on a test may be particular to the form of test taken, for the performance of an individual this is not necessarily true.

In the case of tests of different function the problem of establishing a table of comparable scores is more complex. It includes all of the sources of error mentioned above and additional objectionable features: the conversion line is dependent upon the particular definition of comparability employed, it is dependent upon the particular population used to establish the line, and it is affected by any kind of differential selection of the equating samples.

It was known before this study was undertaken that the two tests in each pair were dissimilar in several respects: length of test in number of scorable units, length of test in time, test difficulty, and function. Although it is true that the Proficiency Tests were designed to measure the same skills as the Cooperative Tests and in this sense serve the same function, it is also true that they were designed for a different group and for a different purpose. In addition there was the problem of scoring reliability of the Speaking and Writing Tests. In this context scoring reliability is an indication of the extent to which two scorers working independently would agree on the scores to be assigned to a given set of test papers. For the equating study the Cooperative Speaking and Writing Tests were scored in accordance with the usual practice for the Cooperative Tests at the place where they were administered, the University of Illinois, but the Proficiency Tests were scored by the professional staff at Educational Testing Service. In order to get some idea of the relative scoring standards of these two different groups of scorers, several Cooperative Speaking and Writing Tests that had been scored at Illinois were sent to ETS for rescoring. The results are shown in the table below, where the Illinois score is given first, the ETS score second, and the difference third.

Cooperative French Speaking

37	30	- 7
43	28	-15
50	35	-15
43	26	-17

Cooperative German Speaking

34	26	- 8
24	31	+ 7
37	35	- 2

Cooperative Spanish Speaking

(No comparison made)

Cooperative French Writing

57	55	- 2
47	50	+ 3
31	31	0
55	53	- 2

Cooperative German Writing

47	43	- 4
75	73	- 2
27	28	+ 1
39	29	-10

Cooperative Spanish Writing

65	57	- 8
78	69	- 9
91	80	-11
73	64	- 9

Although these samples are too small to form a basis for reliable comparisons, they do point out that a scoring problem exists and suggest that Speaking and Writing scores obtained by different professional scoring groups can not be combined for statistical purposes without affecting the reliability of the results, and that a table of comparable scores obtained with one equating sample and group of professional scorers might be significantly different from a similar table obtained with a different equating sample and group of professional scorers. On theoretical grounds there would have been some advantage in having both sets of tests scored by the same group, but even this would not have eliminated the problem of scoring reliability. Any scoring system that has a subjective element presents problems in interpreting scores and limits the use of tables of comparable scores developed from it. This was the reason for not augmenting the small equating samples for German Speaking and German Writing by enlisting the cooperation of another institution.

In the designing of the equating experiment two important decisions were made: the choice of method for establishing the tables of comparable scores and the choice of equating samples. Inasmuch as the tests in each pair are so different in level of difficulty that it would be unreasonable to assume that the score distributions for any group taking both tests would have the same general characteristics, and as the tests have no common items that could be used as a basis for comparison, the equating method that seemed most appropriate was that described at the beginning of this report. The choice of sample came about through the interest expressed by Dr Richard Spencer of the University of Illinois and the prospect of getting large enough samples from a single institution. At the time that the arrangements for administering the tests were made, it was expected that each language group would consist of at least 500 students who were completing a third or fourth semester course in that language and that their language proficiency was sufficiently high that the Proficiency Tests would not be completely inappropriate for them. An additional advantage was that the Cooperative Tests were to be used as part of the final examinations, thus insuring high motivation. When it became apparent that the German samples were going to be much smaller than expected, it was not possible to obtain additional cases for the Speaking and Writing Tests, but arrangements were made with Hofstra University for the administration of the Reading and Listening

Tests. The samples for French and Spanish are quite adequate for this purpose, and although the German samples are small, they would have been satisfactory if the administration of the tests could have been better controlled.

In the counterbalancing of the administration of each pair of tests an attempt was made to divide the total sample into two random subsamples of similar characteristics. The extent to which this aim was achieved is shown in Tables 2, 3, 4, and 44. If the two subsamples were approximately equal proficiency in the skill measured, and if there was a practice effect which resulted in a slightly higher than expected score on the second test taken, then Group I, the subsample that took the Cooperative Test first, would have a lower mean than Group II on the Cooperative Test and a higher mean on the Proficiency Test. This pattern of means is shown for French Listening Comprehension, French Speaking, and Spanish Listening Comprehension. Table 44 shows that the subsamples for these three equatings are well balanced in regard to course level, student status, and grade in course. The analysis of covariance shows that in each case the two groups differ significantly and that this difference is most significant with French Listening. Table 2 shows that Group II of the French Listening is significantly less variable, particularly on the Proficienty Test, than Group I. For the other tests, since the subsamples are well matched in all other respects, the difference may be attributed to the order in which the tests were administered.

For French Reading, French Writing, and Spanish Speaking, one subsample has higher means on both tests than the other, but the differences are small. Here again the descriptive information on the subsamples shows them to be reasonably well balanced, and the analysis of covariance indicates that there is no significant difference. A comparison of the combined group means with the adjusted means shows that the effect of practice or fatigue is negligible.

In the case of Spanish Reading and Spanish Writing each group performed better on the first test taken. The sample description shows very little difference between samples. The analysis of covariance shows no significant difference between the Writing samples, indicating that the practice effect was negligible, and a significant difference with respect to intercepts for the Reading samples, indicating that the practice effect was significant.

The German equating is less satisfactory than that for French and Spanish. In addition to the fact that the samples were small, the subsamples were poorly matched, as is shown in Tables 3, 5, and 44. The best of these is German Speaking, in which case spiralling the tests among the students in each class was possible. In each case the samples are significantly different in some respect.

Conclusions

Although the tables of comparable scores that were developed in this equating experiment are of restricted use, the equating results show that the two batteries of tests have some overlap in difficulty and that for a group of students who have achieved a degree of language proficiency that is near the upper limit of the measuring range of the Cooperative Tests, the Proficiency Tests may be a satisfactory measuring instrument. This is shown graphically in Figures 1 and 2. In interpreting Figure 1, one should bear in mind that the Speaking and Writing Tests for the norms groups were scored at Educational Testing Service, while those for the equating samples were scored at the University of Illinois. If the norms groups had been scored locally, the relationship between corresponding samples might have been quite different.

The tables of comparable scores for the French Listening and Reading and the Spanish Listening and Reading are the most reliable: the samples were large, well matched, and the scoring reliability 1.00. The tables for the French and Spanish Speaking and Writing are as reliable as the subjective scoring permits and may be used for interpreting group performance. The tables for the German tests are the least reliable, not only because the samples were rather small, but because the subsamples were not as well matched as would have been desirable. The Reading and Listening equatings have the advantage of objective scoring and relatively high correlations between tests. The Speaking and Writing tables are of some use in interpreting group performance, but not individual performance.

LIST OF TABLES AND FIGURES

Table 1 — Test Information

Tables 2- 4 — Summary Statistics and Conversion Information

- Table 2 - French
- Table 3 - German
- Table 4 - Spanish

Table 5 — Analyses of Covariance

Tables 6-17 — Tables of Comparable Scores

- Table 6 - French Listening
- Table 7 - French Speaking
- Table 8 - French Reading
- Table 9 - French Writing
- Table 10 - German Listening
- Table 11 - German Speaking
- Table 12 - German Reading
- Table 13 - German Writing
- Table 14 - Spanish Listening
- Table 15 - Spanish Speaking
- Table 16 - Spanish Reading
- Table 17 - Spanish Writing

Tables 18-41 — Frequency Distributions: Cooperative and Proficiency Tests

- Tables 18, 19 - French Listening
- Tables 20, 21 - French Speaking
- Tables 22, 23 - French Reading
- Tables 24, 25 - French Writing
- Tables 26, 27 - German Listening
- Tables 28, 29 - German Speaking
- Tables 30, 31 - German Reading
- Tables 32, 33 - German Writing
- Tables 34, 35 - Spanish Listening
- Tables 36, 37 - Spanish Speaking
- Tables 38, 39 - Spanish Reading
- Tables 40, 41 - Spanish Writing

Table 42 — Comparison of the Equating Samples with the Second-Year College General Norms Groups on the MLA Cooperative Tests

Table 43 — Comparison of the Equating Samples with the National Norms Groups on the MLA Proficiency Tests

Figure 1 — Graph Corresponding to Table 42

Figure 2 — Graph Corresponding to Table 43

Table 44 — Description of the Equating Samples

Table 1

Test Information

MLA Cooperative and MLA Proficiency Tests

Test Title	Time Limit*	Number of Items	Maximum Raw Score	Converted Score Range
Cooperative Tests, Form MA				
French Listening	(25 min.)	40	40	133-199
German Listening	"	40	40	130-182
Spanish Listening	"	40	40	125-191
French Speaking	(10 min.)	38	82	130-194
German Speaking	"	38	82	132-186
Spanish Speaking	"	38	82	113-221
French Reading	35 min.	50	50	132-199
German Reading	"	50	50	131-200
Spanish Reading	"	50	50	131-201
French Writing	35 min.	50	100	139-198
German Writing	"	50	100	136-189
Spanish Writing	"	50	100	135-185
Proficiency Tests, Form A				
French Listening	(20 min.)	36	36	20- 56
German Listening	"	36	36	20- 56
Spanish Listening	"	36	36	20- 56
French Speaking	(15 min.)	53	105	20-125
German Speaking	"	53	105	20-125
Spanish Speaking	"	53	105	20-125
French Reading	40 min.	50	50	20- 70
German Reading	"	50	50	20- 70
Spanish Reading	"	50	50	20- 70
French Writing	45 min.	60	60	20- 80
German Writing	"	60	60	20- 80
Spanish Writing	"	60	60	20- 80

*NOTES:

The time limits in parentheses are approximate--these tests are selftiming.

All of the tests not marked by asterisks are scored for the total number of correct responses. The Cooperative Speaking Tests have 25 items that are marked right or wrong and 13 ratings, of which four are on a 0-3 scale and nine on a 0-5 scale. The Cooperative Writing Tests have 30 items that are marked right or wrong, 15 items that are rated on a 0-3 scale, and an essay that is rated on a 25-point scale. The Proficiency Speaking Tests have 40 items that are marked right or wrong and 13 ratings on a 0-5 scale.

Table 2

Summary Statistics and Conversion Information for the French Tests

Test	Group*	Number of Students	X (raw score) Cooperative Test Mean	X (raw score) Cooperative Test Standard Deviation	Y (raw score) Proficiency Test Mean	Y (raw score) Proficiency Test Standard Deviation	Correlation	Conversion Parameters: Coop to Prof $Y = A_x X + B_x$	Conversion Parameters: Prof to Coop $X = A_y Y + B_y$
Listening	Group I	403	16.46	5.86	12.68	3.89	.542		
	Group II	403	16.79	5.27	11.70	3.19	.443	$A_x = 0.6382$	$A_y = 1.5669$
	Combined	806	16.62 (16.16)	5.58 (5.58)	12.19 (11.89)	3.59 (3.56)	.491	$B_x = 1.5786$	$B_y = -2.4735$
Speaking	Group I	241	39.89	11.17	45.70	9.91	.672		
	Group II	241	42.41	11.06	44.00	8.83	.618	$A_x = 0.8441$	$A_y = 1.1848$
	Combined	482	41.15 (40.01)	11.19 (11.11)	44.85 (43.89)	9.42 (9.38)	.629	$B_x = 10.1161$	$B_y = -11.9892$
Reading	Group I	404	27.25	7.59	16.93	5.25	.616		
	Group II	404	27.01	6.95	16.90	4.94	.561	$A_x = 0.7007$	$A_y = 1.4272$
	Combined	808	27.13 (27.18)	7.28 (7.28)	16.92 (16.95)	5.10 (5.10)	.590	$B_x = -2.0929$	$B_y = 2.9859$
Writing	Group I	246	41.11	15.07	11.44	5.94	.770		
	Group II	246	42.92	15.25	11.50	5.57	.735	$A_x = 0.3796$	$A_y = 2.6342$
	Combined	492	42.01 (41.60)	15.19 (15.16)	11.47 (11.31)	5.76 (5.76)	.752	$B_x = -4.4825$	$B_y = 11.8100$

*Group I took the Cooperative Test first; Group II took the Proficiency Test first. The two groups were combined for equating. There are two sets of statistics for each combined group: means and standard deviations based on the scores of the total group taken as a single sample, and, in parentheses, means and standard deviations adjusted for the practice or fatigue effect.

Table 3

Summary Statistics and Conversion Information for the German Tests

Test	Group*	Number of Students	X (raw score) Cooperative Test Mean	X (raw score) Cooperative Test Standard Deviation	Y (raw score) Proficiency Test Mean	Y (raw score) Proficiency Test Standard Deviation	Correlation	Conversion Parameters: Coop to Prof $Y = A_x X + B_x$	Conversion Parameters: Prof to Coop $X = A_y Y + B_y$
Listening	Group I	118	22.76	6.95	13.18	6.33	.585	A_x = 0.7768	A_y = 1.2873
	Group II	118	22.44	7.07	11.99	4.38	.613	B_x = - 4.9722	B_y = 6.4013
	Combined	236	22.60 (22.30)	7.01 (7.01)	12.58 (12.35)	5.48 (5.44)	.585		
Speaking	Group I	65	40.32	9.27	52.05	12.34	.591	A_x = 1.1341	A_y = 0.8817
	Group II	65	46.37	13.12	56.29	13.40	.824	B_x = 5.0103	B_y = - 4.4148
	Combined	130	43.35 (42.77)	11.75 (11.36)	54.17 (53.52)	13.05 (12.88)	.734		
Reading	Group I	80	25.51	9.03	18.35	8.17	.756	A_x = 0.8405	A_y = 1.1898
	Group II	80	18.83	6.95	13.85	5.00	.730	B_x = - 2.5329	B_y = 3.0130
	Combined	160	22.17 (22.50)	8.73 (8.06)	16.10 (16.38)	7.14 (6.77)	.772		
Writing	Group I	101	57.21	13.83	11.13	8.74	.717	A_x = 0.6267	A_y = 1.5956
	Group II	101	60.90	15.27	15.68	9.51	.740	B_x = -23.6036	B_y = 37.6640
	Combined	202	59.05 (59.95)	14.69 (14.57)	13.41 (13.97)	9.41 (9.13)	.733		

*Group I took the Cooperative Test first; Group II took the Proficiency Test first. The two groups were combined for equating. There are two sets of statistics for each combined group: means and standard deviations based on the scores of the total group taken as a single sample, and, in parentheses, means and standard deviations adjusted for the practice or fatigue effect.

Table 4

Summary Statistics and Conversion Information for the Spanish Tests

Test	Group*	Number of Students	X (raw score) Cooperative Test Mean	X (raw score) Cooperative Test Standard Deviation	Y (raw score) Proficiency Test Mean	Y (raw score) Proficiency Test Standard Deviation	Correlation	Conversion Parameters: Coop to Prof $Y = A_x X + B_x$	Conversion Parameters: Prof to Coop $X = A_y Y + B_y$
Listening	Group I	205	20.67	5.73	14.03	4.18	.553	A_x = 0.6761	A_y = 1.4791
	Group II	205	21.50	6.32	13.60	3.98	.558	B_x = -0.4436	B_y = 0.6558
	Combined	410	21.09 (20.72)	6.05 (6.04)	13.81 (13.56)	4.09 (4.08)	.548		
Speaking	Group I	184	46.64	8.81	48.24	9.08	.518	A_x = 0.9640	A_y = 1.0374
	Group II	184	48.48	10.16	50.74	9.25	.475	B_x = 3.6416	B_y = -3.7803
	Combined	368	47.56 (47.75)	9.55 (9.51)	49.49 (49.67)	9.25 (9.17)	.500		
Reading	Group I	204	24.39	7.75	15.39	4.54	.506	A_x = 0.5522	A_y = 1.8110
	Group II	204	21.91	8.24	16.00	4.29	.515	B_x = 2.9118	B_y = - 5.2740
	Combined	408	23.15 (24.04)	8.09 (8.00)	15.69 (16.19)	4.43 (4.42)	.492		
Writing	Group I	203	56.77	14.39	15.34	6.26	.644	A_x = 0.4077	A_y = 2.4527
	Group II	203	55.26	15.90	15.56	6.11	.729	B_x = -7.3840	B_y = 18.1127
	Combined	406	56.01 (56.52)	15.18 (15.16)	15.45 (15.66)	6.18 (6.18)	.685		

*Group I took the Cooperative Test first; Group II took the Proficiency Test first. The two groups were combined for equating. There are two sets of statistics for each combined group: means and standard deviations based on the scores of the total group taken as a single sample, and, in parentheses, means and standard deviations adjusted for the practice or fatigue effect.

Table 5 - Analyses of Covariance

for Differences Between Subsamples on the Cooperative and Proficiency Tests

Test	Levels of Significance (Probability of a larger value of chi-square)		
	Errors of Estimate	Regression Slopes	Intercepts
French Listening	.01 > P	.02 > P > .01	.01 > P
French Speaking	.50 > P > .30	.10 > P > .05	.01 > P
French Reading	.90 > P > .80	.50 > P > .30	.80 > P > .70
French Writing	.98 > P > .95	.20 > P > .10	.20 > P > .10
German Listening	.01 > P	.10 > P > .05	.10 > P > .05
German Speaking	.05 > P > .02	.80 > P > .70	.70 > P > .50
German Reading	.01 > P	.10 > P > .05	.70 > P > .50
German Writing	.70 > P > .50	.90 > P > .80	.01 > P
Spanish Listening	.50 > P > .30	.50 > P > .30	.05 > P > .02
Spanish Speaking	.70 > P > .50	.30 > P > .20	.10 > P > .05
Spanish Reading	.50 > P > .30	.70 > P > .50	.01 > P
Spanish Writing	.10 > P > .05	P > .99	.20 > P > .10

This table gives the probability P of a larger value of chi-square for any other pair of random samples drawn from the same population. If $P < .05$, the two samples may be considered to be significantly different.

Table 6

Table of Comparable Scores for French Listening

Cooperative Test, Form MA		Proficiency Test, Form A (K-JML1)	
Raw Score	Scaled Score	Raw Score	Scaled Score
40	199	27.1	47.1
39	198	26.5	46.5
38	196	25.8	45.8
37	195	25.2	45.2
36	194	24.6	44.6
35	193	23.9	43.9
34	191	23.3	43.3
33	190	22.6	42.6
32	189	22.0	42.0
31	187	21.4	41.4
30	186	20.7	40.7
29	184	20.1	40.1
28	183	19.4	39.4
27	182	18.8	38.8
26	181	18.2	38.2
25	179	17.5	37.5
24	178	16.9	36.9
23	177	16.3	36.3
22	175	15.6	35.6
21	174	15.0	35.0
20	172	14.3	34.3
19	170	13.7	33.7
18	168	13.1	33.1
17	166	12.4	32.4
16	164	11.8	31.8
15	162	11.2	31.2
14	160	10.5	30.5
13	158	9.9	29.9
12	156	9.2	29.2
11	154	8.6	28.6
10	152	8.0	28.0
9	149	7.3	27.3
8	146	6.7	26.7
7	144	6.0	26.0
6	142	5.4	25.4
5	141	4.8	24.8
4	139	4.1	24.1
3	137	3.5	23.5
2	136	2.9	22.9
1	135	2.2	22.2
0	133	1.6	21.6

Table 7

Table of Comparable Scores for French Speaking

Cooperative Test Form MA		Proficiency Test Form A (K-JML1)		Cooperative Test Form MA		Proficiency Test Form A (K-JML1)	
Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score
82	194	79.3	99.3				
81	193	78.5	98.5				
80	192	77.6	97.6				
79	192	76.8	96.8	39	164	43.0	63.0
78	191	76.0	96.0	38	164	42.2	52.2
77	190	75.1	95.1	37	163	41.3	51.3
76	190	74.3	94.3	36	162	40.5	60.5
75	189	73.4	93.4	35	162	39.7	59.7
74	189	72.6	92.6	34	161	38.8	58.8
73	188	71.7	91.7	33	160	38.0	58.0
72	187	70.9	90.9	32	159	37.1	57.1
71	187	70.0	90.0	31	158	36.3	56.3
70	186	69.2	89.2	30	157	35.4	65.4
69	185	68.4	88.4	29	156	34.6	54.6
68	185	67.5	87.5	28	155	33.8	53.8
67	184	66.7	86.7	27	155	32.9	52.9
66	184	65.8	85.8	26	154	32.1	52.1
65	183	65.0	85.0	25	153	31.2	51.2
64	182	64.1	84.1	24	152	30.4	50.4
63	182	63.3	83.3	23	151	29.5	49.5
62	181	62.5	82.5	22	150	28.7	48.7
61	180	61.6	81.6	21	149	27.8	47.8
60	180	60.8	80.8	20	148	27.0	57.0
59	179	59.9	79.9	19	147	26.2	46.2
58	178	59.1	79.1	18	146	25.3	45.3
57	178	58.2	78.2	17	144	24.5	44.5
56	177	57.4	77.4	16	143	23.6	43.6
55	177	56.5	76.5	15	142	22.8	42.8
54	176	55.7	75.7	14	141	21.9	41.9
53	176	54.9	74.9	13	140	21.1	41.1
52	175	54.0	74.0	12	139	20.2	40.2
51	174	53.2	73.2	11	139	19.4	39.4
50	174	52.3	72.3	10	138	18.6	38.6
49	173	51.5	71.5	9	137	17.7	37.7
48	172	50.6	70.6	8	136	16.9	36.9
47	171	49.8	69.8	7	136	16.0	36.0
46	170	48.9	68.9	6	135	15.2	35.2
45	169	48.1	68.1	5	134	14.3	34.3
44	168	47.3	67.3	4	133	13.5	33.5
43	167	46.4	66.4	3	133	12.6	32.6
42	166	45.6	65.6	2	132	11.8	31.8
41	166	44.7	64.7	1	131	11.0	31.0
40	165	43.9	63.9	0	130	10.1	30.1

Table 8

Table of Comparable Scores for French Reading

Cooperative Test Form MA		Proficiency Test Form A (K-JML1)		Cooperative Test Form A		Proficiency Test Form A (K-JML1)	
Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score
50	199	32.9	52.9	19	169	11.2	31.2
49	198	32.2	52.2	18	168	10.5	30.5
48	197	31.5	51.5	17	166	9.8	29.8
47	196	30.8	50.8	16	164	9.1	29.1
46	195	30.1	50.1	15	162	8.4	28.4
45	194	29.4	49.4	14	160	7.7	27.7
44	193	28.7	48.7	13	158	7.0	27.0
43	192	28.0	48.0	12	155	6.3	26.3
42	191	27.3	47.3	11	153	5.6	25.6
41	190	26.6	46.6	10	151	4.9	24.9
40	189	25.9	45.9	9	149	4.2	24.2
39	189	25.2	45.2	8	148	3.5	23.5
38	188	24.5	44.5	7	146	2.8	22.8
37	187	23.8	43.8	6	144	4.1	22.1
36	186	23.1	43.1	5	142	1.4	21.4
35	185	22.4	42.4	4	140	0.7	20.7
34	184	21.7	41.7	3	138	0.0	20.0
33	183	21.0	41.0	2	135	- 0.7	19.3
32	182	20.3	40.3	1	133	- 1.4	18.6
31	181	19.6	39.6	0	132	- 2.1	17.9
30	180	18.9	38.9				
29	179	18.2	38.2				
28	178	17.5	37.5				
27	177	16.8	36.8				
26	176	16.1	36.1				
25	175	15.4	35.4				
24	174	14.7	34.7				
23	174	14.0	34.0				
22	173	13.3	33.3				
21	171	12.6	32.6				
20	170	11.9	31.9				

Table 9

Table of Comparable Scores for French Writing

Cooperative Test		Proficiency Test		Cooperative Test		Proficiency Test	
Raw	Converted	Raw	Converted	Raw	Converted	Raw	Converted
100	198	33.5	53.5				
99	197	33.1	53.1	49	173	14.1	34.1
98	197	32.7	52.7	48	172	13.7	33.7
97	196	32.3	52.3	47	172	13.4	33.4
96	196	32.0	52.0	46	171	13.0	33.0
95	195	31.6	51.6	45	171	12.6	32.6
94	195	31.2	51.2	44	170	12.2	32.2
93	194	30.8	50.8	43	170	11.8	31.8
92	194	30.4	50.4	42	169	11.5	31.5
91	193	30.1	50.1	41	168	11.1	31.1
90	193	29.7	49.7	40	168	10.7	30.7
89	192	29.3	49.3	39	167	10.3	30.3
88	192	28.9	48.9	38	166	9.9	29.9
87	192	28.5	48.5	37	166	9.6	29.6
86	191	28.2	48.2	36	165	9.2	29.2
85	191	27.8	47.8	35	164	8.8	28.8
84	190	27.4	47.4	34	164	8.4	28.4
83	190	27.0	47.0	33	163	8.0	28.0
82	189	26.6	46.6	32	162	7.7	27.7
81	189	26.3	46.3	31	162	7.3	27.3
80	188	25.9	45.9	30	161	6.9	26.9
79	188	25.5	45.5	29	160	6.5	26.5
78	187	25.1	45.1	28	160	6.1	26.1
77	187	24.7	44.7	27	159	5.8	25.8
76	186	24.4	44.4	26	158	5.4	25.4
75	186	24.0	44.0	25	157	5.0	25.0
74	185	23.6	43.6	24	157	4.6	24.6
73	185	23.2	43.2	23	156	4.2	24.2
72	184	22.8	42.8	22	155	3.9	23.9
71	184	22.5	42.5	21	155	3.5	23.5
70	183	22.1	42.1	20	154	3.1	23.1
69	183	21.7	41.7	19	154	2.7	22.7
68	182	21.3	41.3	18	153	2.4	22.4
67	182	21.0	41.0	17	152	2.0	22.0
66	181	20.6	40.6	16	151	1.6	21.6
65	181	20.2	40.2	15	151	1.2	21.2
64	180	19.8	39.8	14	150	.8	20.8
63	180	19.4	39.4	13	149	.5	20.5
62	179	19.1	39.1	12	148	.1	20.1
61	179	18.7	38.7	11	148	- .3*	19.7
60	178	18.3	38.3	10	147	- .7	19.3
59	178	17.9	37.9	9	146	- 1.1	18.9
58	177	17.5	37.5	8	145	- 1.4	18.6
57	177	17.2	37.2	7	145	- 1.8	18.2
56	176	16.8	36.8	6	144	- 2.2	17.8
55	176	16.4	36.4	5	143	- 2.6	17.4
54	175	16.0	36.0	4	141	- 3.0	17.0
53	175	15.6	35.6	3	140	- 3.3	16.7
52	174	15.3	35.3	2	140	- 3.7	16.3
51	174	14.9	34.9	1	139	- 4.1	15.9
50	173	14.5	34.5	0	139	- 4.5	15.5

*These scores are below the lowest obtainable score on the Proficiency Test.

Table 10

Table of Comparable Scores for German Listening

Cooperative Test, Form MA		Proficiency Test, Form A (K-JML1)	
Raw Score	Scaled Score	Raw Score	Scaled Score
40	182	26.1	46.1
39	181	25.3	45.3
38	181	24.5	44.5
37	179	23.8	43.8
36	178	23.0	43.0
35	177	22.2	42.2
34	176	21.4	41.4
33	175	20.7	40.7
32	173	19.9	39.9
31	173	19.1	39.1
30	172	18.3	38.3
29	171	17.6	37.6
28	170	16.8	36.8
27	169	16.0	36.0
26	168	15.2	35.2
25	167	14.4	34.4
24	166	13.7	33.7
23	165	12.9	32.9
22	164	12.1	32.1
21	163	11.3	31.3
20	162	10.6	30.6
19	160	9.8	29.8
18	158	9.0	29.0
17	156	8.2	28.2
16	154	7.5	27.5
15	153	6.7	26.7
14	151	5.9	25.9
13	149	5.1	25.1
12	148	4.3	24.3
11	146	3.6	23.6
10	143	2.8	22.8
9	141	2.0	22.0
8	139	1.2	21.2
7	138	.5	20.5
6	137	- .3*	19.7
5	136	- 1.1	18.9
4	135	- 1.9	18.1
3	133	- 2.6	17.4
2	132	- 3.4	16.6
1	131	- 4.2	15.8
0	130	- 5.0	15.0

*These scores are below the lowest obtainable score on the Proficiency Test.

Table 11

Table of Comparable Scores for German Speaking

Cooperative Test Form MA		Proficiency Test Form A (K-JML1)		Cooperative Test Form MA		Proficiency Test Form A (K-JML1)	
Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score
82	186	98.0	118.0				
81	185	96.9	116.9				
80	185	95.7	115.7				
79	184	94.6	114.6	39	161	49.2	69.2
78	184	93.5	113.5	38	160	48.1	68.1
77	184	92.3	112.3	37	159	47.0	67.0
76	183	91.2	111.2	36	158	45.8	65.8
75	183	90.1	110.1	35	157	44.7	64.7
74	182	88.9	108.9	34	157	43.6	63.6
73	182	87.8	107.8	33	156	42.4	62.4
72	181	86.7	106.7	32	155	41.3	61.3
71	181	85.5	105.5	31	155	40.2	60.2
70	180	84.4	104.4	30	154	39.0	59.0
69	180	83.3	103.3	29	153	37.9	57.9
68	179	82.1	102.1	28	152	36.8	56.8
67	179	81.0	101.0	27	152	35.6	55.6
66	178	79.9	99.9	26	151	34.5	54.5
65	177	78.7	98.7	25	150	33.4	53.4
64	177	77.6	97.6	24	149	32.2	52.2
63	176	76.5	96.5	23	148	31.1	51.1
62	175	75.3	95.3	22	147	30.0	50.0
61	174	74.2	94.2	21	146	28.8	48.8
60	174	73.1	93.1	20	146	27.7	47.7
59	173	71.9	91.9	19	145	26.6	46.6
58	173	70.8	90.8	18	143	25.4	45.4
57	172	69.7	89.7	17	142	24.3	44.3
56	172	68.5	88.5	16	141	23.2	43.2
55	171	67.4	87.4	15	140	22.0	42.0
54	171	66.3	86.3	14	139	20.9	40.9
53	170	65.1	85.1	13	139	19.8	39.8
52	170	64.0	84.0	12	138	18.6	38.6
51	169	62.8	82.8	11	138	17.5	37.5
50	168	61.7	81.7	10	137	16.4	36.4
49	167	60.6	80.6	9	137	15.2	35.2
48	166	59.4	79.4	8	136	14.1	34.1
47	166	58.3	78.3	7	136	12.9	32.9
46	165	57.2	77.2	6	135	11.8	31.8
45	165	56.0	76.0	5	134	10.7	30.7
44	164	54.9	74.9	4	134	9.5	29.5
43	164	53.8	73.8	3	133	8.4	28.4
42	163	52.6	72.6	2	133	7.3	27.3
41	162	51.5	71.5	1	132	6.1	26.1
40	162	50.4	70.4	0	132	5.0	25.0

Table 12

Table of Comparable Scores for German Reading

Cooperative Test Form MA		Proficiency Test Form A (K-JML1)		Cooperative Test Form MA		Proficiency Test Form A (K-JML1)	
Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score
50	200	39.5	59.5	19	166	13.4	33.4
49	199	38.7	58.7	18	164	12.6	32.6
48	198	37.8	57.8	17	162	11.8	31.8
47	197	37.0	57.0	16	160	10.9	30.9
46	196	36.1	56.1	15	158	10.1	30.1
45	195	35.3	55.3	14	156	9.2	29.2
44	194	34.4	54.4	13	154	8.4	28.4
43	193	33.6	53.6	12	152	7.6	27.6
42	192	32.8	52.8	11	150	6.7	26.7
41	191	31.9	51.9	10	148	5.9	25.9
40	190	31.1	51.1	9	146	5.0	25.0
39	189	30.2	50.2	8	144	4.2	24.2
38	188	29.4	49.4	7	141	3.4	23.4
37	187	28.6	48.6	6	139	2.5	22.5
36	186	27.7	47.7	5	137	1.7	21.7
35	185	26.9	46.9	4	136	.8	20.8
34	184	26.0	46.0	3	135	.0	20.0
33	183	25.2	45.2	2	134	- .8*	19.2
32	182	24.4	44.4	1	132	- 1.7	18.3
31	181	23.5	43.5	0	131	- 2.5	17.5
30	180	22.7	42.7				
29	179	21.8	41.8				
28	178	21.0	41.0				
27	177	20.2	40.2				
26	176	19.3	39.3				
25	175	18.5	38.5				
24	173	17.6	37.6				
23	172	16.8	36.8				
22	170	16.0	36.0				
21	169	15.1	35.1				
20	167	14.3	34.3				

*These scores are below the lowest obtainable score on the Proficiency Test.

Table 13

Table of Comparable Scores for German Writing

Cooperative Test		Proficiency Test		Cooperative Test		Proficiency Test	
Raw	Converted	Raw	Converted	Raw	Converted	Raw	Converted
100	189	39.1	59.1				
99	189	38.4	58.4	49	167	7.1	27.1
98	188	37.8	57.8	48	167	6.5	26.5
97	188	37.2	57.2	47	167	5.9	25.9
96	187	36.6	56.6	46	166	5.2	25.2
95	187	35.9	55.9	45	166	4.6	24.6
94	186	35.3	55.3	44	165	4.0	24.0
93	186	34.7	54.7	43	165	3.3	23.3
92	185	34.1	54.1	42	164	2.7	22.7
91	185	33.4	53.4	41	164	2.1	22.1
90	184	32.8	52.8	40	163	1.5	21.5
89	184	32.2	52.2	39	163	0.8	20.8
88	183	31.5	51.5	38	163	0.2	20.2
87	183	30.9	50.9	37	162	- 0.4*	19.6
86	182	30.3	50.3	36	162	- 1.0	19.0
85	182	29.7	49.7	35	161	- 1.7	18.3
84	181	29.0	49.0	34	160	- 2.3	17.7
83	181	28.4	48.4	33	159	- 2.9	17.1
82	180	27.8	47.8	32	158	- 3.5	16.5
81	180	27.2	47.2	31	158	- 4.2	15.8
80	179	26.5	46.5	30	157	- 4.8	15.2
79	179	25.9	45.9	29	156	- 5.4	14.6
78	178	25.3	45.3	28	156	- 6.1	13.9
77	178	24.7	44.7	27	155	- 6.7	13.3
76	177	24.0	44.0	26	155	- 7.3	12.7
75	177	23.4	43.4	25	154	- 7.9	12.1
74	176	22.8	42.8	24	153	- 8.6	11.4
73	176	22.1	42.1	23	153	- 9.2	10.8
72	175	21.5	41.5	22	152	- 9.8	10.2
71	175	20.9	40.9	21	152	-10.4	9.6
70	175	20.3	40.3	20	151	-11.1	8.9
69	174	19.6	39.6	19	150	-11.7	8.3
68	174	19.0	39.0	18	149	-12.3	7.7
67	174	18.4	38.4	17	149	-12.9	7.1
66	173	17.8	37.8	16	148	-13.6	6.4
65	173	17.1	37.1	15	147	-14.2	5.8
64	173	16.5	36.5	14	147	-14.8	5.2
63	172	15.9	35.9	13	146	-15.5	4.5
62	172	15.3	35.3	12	145	-16.1	3.9
61	172	14.6	34.6	11	144	-16.7	3.3
60	171	14.0	34.0	10	143	-17.3	2.7
59	171	13.4	33.4	9	143	-18.0	2.0
58	171	12.7	32.7	8	142	-18.6	1.4
57	170	12.1	32.1	7	141	-19.2	0.8
56	170	11.5	31.5	6	141	-19.8	0.2
55	170	10.9	30.9	5	140	-20.5	- 0.5
54	169	10.2	30.2	4	139	-20.1	- 1.1
53	169	9.6	29.6	3	138	-21.7	- 1.7
52	168	9.0	29.0	2	138	-22.4	- 2.4
51	168	8.4	28.4	1	137	-23.0	- 3.0
50	168	7.7	27.7	0	136	-23.6	- 3.6

*These scores are below the lowest obtainable score on the Proficiency Test.

Table 14

Table of Comparable Scores for Spanish Listening

Cooperative Test, Form MA		Proficiency Test, Form A (K-JML1)	
Raw Score	Scaled Score	Raw Score	Scaled Score
40	191	26.6	46.6
39	190	25.9	45.9
38	189	25.2	45.2
37	188	24.6	44.6
36	187	23.9	43.9
35	186	23.2	43.2
34	185	22.5	42.5
33	184	21.9	41.9
32	183	21.2	41.2
31	181	20.5	40.5
30	180	19.8	39.8
29	178	19.2	39.2
28	177	18.5	38.5
27	176	17.8	37.8
26	174	17.1	37.1
25	173	16.5	36.5
24	172	15.8	35.8
23	170	15.1	35.1
22	169	14.4	34.4
21	167	13.8	33.8
20	166	13.1	33.1
19	164	12.4	32.4
18	162	11.7	31.7
17	160	11.1	31.1
16	158	10.4	30.4
15	155	9.7	29.7
14	152	9.0	29.0
13	150	8.3	28.3
12	148	7.7	27.7
11	146	7.0	27.0
10	144	6.3	26.3
9	141	5.6	25.6
8	139	5.0	25.0
7	137	4.3	24.3
6	135	3.6	23.6
5	133	2.9	22.9
4	132	2.3	22.3
3	130	1.6	21.6
2	129	0.9	20.9
1	127	0.2	20.2
0	125	- 0.5*	19.5

*This score is below the lowest obtainable score on the Proficiency Test.

Table 15

Table of Comparable Scores for Spanish Speaking

Cooperative Test Form MA		Proficiency Test Form A (K-JML1)		Cooperative Test Form MA		Proficiency Test Form A (K-JML1)	
Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score
82	221	82.7	102.7				
81	220	81.7	101.7				
80	218	80.8	100.8				
79	217	79.8	99.8	39	169	41.2	61.2
78	216	78.8	98.8	38	168	40.3	60.3
77	215	77.9	97.9	37	166	39.3	59.3
76	213	76.9	96.9	36	163	38.3	58.3
75	212	75.9	95.9	35	160	37.4	57.4
74	211	75.0	95.0	34	158	36.4	56.4
73	210	74.0	94.0	33	156	35.5	55.5
72	209	73.0	93.0	32	154	34.5	54.5
71	208	72.1	92.1	31	153	33.5	53.5
70	206	71.1	91.1	30	152	32.6	52.6
69	205	70.2	90.2	29	151	31.6	51.6
68	204	69.2	89.2	28	149	30.6	50.6
67	203	68.2	88.2	27	148	29.7	49.7
66	201	67.3	87.3	26	147	28.7	48.7
65	200	66.3	86.3	25	145	27.7	47.7
64	199	65.3	85.3	24	143	26.8	46.8
63	198	64.4	84.4	23	142	25.8	45.8
62	197	63.4	83.4	22	140	24.8	44.8
61	196	62.4	82.4	21	138	23.9	43.9
60	194	61.5	81.5	20	137	22.9	42.9
59	193	60.5	80.5	19	135	22.0	42.0
58	192	59.6	79.6	18	133	21.0	41.0
57	191	58.6	78.6	17	132	20.0	40.0
56	190	57.6	77.6	16	130	19.1	39.1
55	188	56.7	76.7	15	129	18.1	38.1
54	187	55.7	75.7	14	128	17.1	37.1
53	186	54.7	74.7	13	127	16.2	36.2
52	185	53.8	73.8	12	126	15.2	35.2
51	184	52.8	72.8	11	125	14.2	34.2
50	183	51.8	71.8	10	124	13.3	33.3
49	182	50.9	70.9	9	123	12.3	32.3
48	181	49.9	69.9	8	122	11.4	31.4
47	180	48.9	68.9	7	121	10.4	30.4
46	179	48.0	68.0	6	120	9.4	29.4
45	178	47.0	67.0	5	119	8.5	28.5
44	176	46.1	66.1	4	118	7.5	27.5
43	175	45.1	65.1	3	117	6.5	26.5
42	174	44.1	64.1	2	115	5.6	25.6
41	173	43.2	63.2	1	114	4.6	24.6
40	171	42.2	62.2	0	113	3.6	23.6

Table 16

Table of Comparable Scores for Spanish Reading

Cooperative Test Form MA		Proficiency Test Form A (K-JML1)		Cooperative Test Form MA		Proficiency Test Form A (K-JML1)	
Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score	Raw Score	Converted Score
50	201	30.5	50.5	19	167	13.4	33.4
49	200	30.0	50.0	18	166	12.9	32.9
48	199	29.4	49.4	17	164	12.3	32.3
47	198	28.9	48.9	16	162	11.7	31.7
46	197	28.3	48.3	15	160	11.2	31.2
45	196	27.8	47.8	14	157	10.6	30.6
44	195	27.2	47.2	13	155	10.1	30.1
43	194	26.7	46.7	12	154	9.5	29.5
42	193	26.1	46.1	11	151	9.0	29.0
41	192	25.6	45.6	10	149	8.4	28.4
40	191	25.0	45.0	9	148	7.9	27.9
39	190	24.4	44.4	8	146	7.3	27.3
38	189	23.9	43.9	7	144	6.8	26.8
37	188	23.3	43.3	6	142	6.2	26.2
36	187	22.8	42.8	5	141	5.7	25.7
35	186	22.2	42.2	4	139	5.1	25.1
34	185	21.7	41.7	3	137	4.6	24.6
33	184	21.1	41.1	2	135	4.0	24.0
32	183	20.6	40.6	1	133	3.5	23.5
31	182	20.0	40.0	0	131	2.9	22.9
30	181	19.5	39.5				
29	180	18.9	38.9				
28	179	18.4	38.4				
27	178	17.8	37.8				
26	177	17.3	37.3				
25	176	16.7	36.7				
24	174	16.2	36.2				
23	173	15.6	35.6				
22	172	15.1	35.1				
21	170	14.5	34.5				
20	169	14.0	34.0				

Table 17

Table of Comparable Scores for Spanish Writing

Cooperative Test		Proficiency Test		Cooperative Test		Proficiency Test	
Raw	Converted	Raw	Converted	Raw	Converted	Raw	Converted
100	185	33.4	53.4				
99	184	33.0	53.0	49	164	12.6	32.6
98	184	32.6	52.6	48	163	12.2	32.2
97	183	32.2	52.2	47	163	11.8	31.8
96	183	31.8	51.8	46	162	11.4	31.4
95	183	31.3	51.3	45	162	11.0	31.0
94	182	30.9	50.9	44	161	10.6	30.6
93	182	30.5	50.5	43	161	10.1	30.1
92	181	30.1	50.1	42	160	9.7	29.7
91	181	29.7	49.7	41	159	9.3	29.3
90	181	29.3	49.3	40	159	8.9	28.9
89	180	28.9	48.9	39	158	8.5	28.5
88	180	28.5	48.5	38	158	8.1	28.1
87	179	28.1	48.1	37	157	7.7	27.7
86	179	27.7	47.7	36	157	7.3	27.3
85	179	27.3	47.3	35	156	6.9	26.9
84	178	26.9	46.9	34	156	6.5	26.5
83	178	26.5	46.5	33	155	6.1	26.1
82	178	26.0	46.0	32	154	5.7	25.7
81	177	25.6	45.6	31	154	5.3	25.3
80	177	25.2	45.2	30	153	4.8	24.8
79	176	24.8	44.8	29	153	4.4	24.4
78	176	24.4	44.4	28	152	4.0	24.0
77	176	24.0	44.0	27	151	3.6	23.6
76	175	23.6	43.6	26	151	3.2	23.2
75	175	23.2	43.2	25	150	2.8	22.8
74	175	22.8	42.8	24	149	2.4	22.4
73	174	22.4	42.4	23	148	2.0	22.0
72	174	22.0	42.0	22	148	1.6	21.6
71	174	21.6	41.6	21	147	1.2	21.2
70	173	21.2	41.2	20	146	.8	20.8
69	173	20.7	40.7	19	145	.4	20.4
68	173	20.3	40.3	18	144	.0	20.0
67	173	19.9	39.9	17	143	- .4*	19.6
66	172	19.5	39.5	16	142	- .9	19.1
65	172	19.1	39.1	15	142	- 1.3	18.7
64	171	18.7	38.7	14	141	- 1.7	18.3
63	171	18.3	38.3	13	141	- 2.1	17.9
62	170	17.9	37.9	12	140	- 2.5	17.5
61	170	17.5	37.5	11	140	- 2.9	17.1
60	169	17.1	37.1	10	139	- 3.3	16.7
59	168	16.7	36.7	9	139	- 3.7	16.3
58	167	16.3	36.3	8	138	- 4.1	15.9
57	167	15.9	35.9	7	137	- 4.5	15.5
56	166	15.4	35.4	6	137	- 4.9	15.1
55	166	15.0	35.0	5	137	- 5.3	14.7
54	166	14.6	34.6	4	136	- 5.7	14.3
53	165	14.2	34.2	3	136	- 6.2	13.8
52	165	13.8	33.8	2	136	- 6.6	13.4
51	165	13.4	33.4	1	135	- 7.0	13.0
50	164	13.0	33.0	0	135	- 7.4	12.6

*These scores are below the lowest obtainable scores on the Proficiency Test.

Table 18

Frequency Distributions for French Cooperative Listening

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(40 max.)						
39	1	99.8			1	99.9
35	1	99.5			1	99.8
34	2	99			2	99.5
33	1	99	2	99.5	3	99.1
32	4	98		99.5	4	99
31	3	97	3	99	6	98
30	2	97	3	98	5	97
29	3	96	4	97	7	96
28	3	95	2	97	5	96
27	3	94	4	96	7	95
26	7	93	5	94	12	93
25	4	92	4	93	8	92
24	10	89	14	90	24	89
23	14	86	22	84	36	85
22	15	82	15	81	30	81
21	21	77	20	76	41	76
20	18	72	21	70	39	71
19	22	67	15	67	37	67
18	17	63	26	60	43	61
17	27	56	36	51	63	54
16	24	50	35	43	59	46
15	35	41	29	35	64	38
14	29	34	29	28	58	31
13	30	27	25	22	55	24
12	21	21	30	15	51	18
11	30	14	16	11	46	12
10	17	10	12	8	29	9
9	17	5	14	4	31	5
8	10	3	9	2	19	2
7	6	1	4	1	10	1
6	5	0.2	2	0.5	7	0.4
5		0.2	2		2	0.1
4	1				1	
Number of Students	403		403		806	
Mean	16.46		16.79		16.62	
Standard Deviation	5.86		5.27		5.58	

Table 19

Frequency Distributions for French Proficiency Listening

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(36 max.)						
36	1	99.8			1	99.9
27	2	99.3			2	99.6
25	1	99			1	99.5
24		99	1	99.8	1	99.4
23	1	99		99.8	1	99.3
22	5	98	2	99.3	7	98
21	7	96	1	99	8	97
20	5	95	4	98	9	96
19	5	93	6	97	11	95
18	9	91	2	96	11	94
17	17	87	9	94	26	90
16	24	81	23	88	47	84
15	27	74	20	83	47	79
14	44	63	33	75	77	69
13	50	51	46	64	96	57
12	47	39	56	50	103	44
11	44	28	59	35	103	32
10	35	20	41	25	76	22
9	34	11	33	17	67	14
8	17	7	40	7	57	7
7	15	3	15	3	30	3
6	6	2	7	1	13	1
5	5	0.4	2	0.7	7	0.6
4	1	0.3	2	0.2	3	0.2
3	1			0.2	1	0.1
1			1		1	
Number of Students	403		403		806	
Mean	12.68		11.70		12.19	
Standard Deviation	3.89		3.19		3.59	

Table 20

Frequency Distributions for French Cooperative Speaking

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(82 max.)						
74-75			1	99.6	1	99.8
72-73	1	99.6	1	99.2	2	99.4
70-71	1	99.2		99.2	1	99.2
68-69	1	99	1	99	2	99
66-67	2	98	3	98	5	98
64-65		98	2	97	2	97
62-63	2	97	5	95	7	96
60-61	2	96	5	93	7	94
58-59	3	95	4	91	7	93
56-57	7	92	11	86	18	89
54-55	5	90	10	82	15	86
52-53	11	85	13	77	24	81
50-51	13	80	8	73	21	77
48-49	9	76	8	70	17	73
46-47	21	68	14	64	35	66
44-45	16	61	15	58	31	60
42-43	15	55	20	50	35	52
40-41	19	47	13	44	32	46
38-39	11	42	18	37	29	40
36-37	17	35	25	27	42	31
34-35	10	31	18	19	28	25
32-33	15	25	11	15	26	20
30-31	14	19	10	10	24	15
28-29	15	13	6	8	21	10
26-27	6	10	7	5	13	8
24-25	10	6	6	2	16	4
22-23	5	4	4	0.8	9	2
20-21	4	2		0.8	4	2
18-19	2	2		0.8	2	1
16-17	1	1		0.8	1	1
14-15	1	0.8	1	0.4	2	0.6
12-13	2			0.4	2	0.2
10-11				0.4		0.2
8- 9				0.4		0.2
6- 7			1		1	
Number of Students	241		241		482	
Mean	39.89		42.41		41.15	
Standard Deviation	11.17		11.06		11.19	

Table 21

Frequency Distributions for French Proficiency Speaking

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(105 max.)						
72-73	1	99.6			1	99.8
70-71	1	99.2	1	99.6	2	99.4
68-69	1	99		99.6	1	99.2
66-67	2	98	1	99.2	3	99
64-65	3	97	1	99	4	98
62-63	2	96	3	98	5	97
60-61	7	93	6	95	13	94
58-59	10	89	6	93	16	91
56-57	14	83	12	88	26	85
54-55	12	78	8	84	20	81
52-53	14	72	12	79	26	76
50-51	17	65	14	73	31	69
48-49	22	56	22	64	44	60
46-47	24	46	12	59	36	53
44-45	20	38	19	51	39	45
42-43	21	29	21	43	42	36
40-41	6	27	20	34	26	31
38-39	10	22	23	25	33	24
36-37	10	18	16	18	26	18
34-35	12	13	18	11	30	12
32-33	15	7	8	7	23	7
30-31	5	5	11	3	16	4
28-29	5	3	5	0.8	10	2
26-27	2	2	1	0.4	3	1
24-25	2	1		0.4	2	0.8
22-23		1	1		1	0.6
20-21	1	0.8			1	0.4
18-19	1	0.4			1	0.4 0.2
16-17		0.4				0.2
14-15	1				1	
Number of Students	241		241		482	
Mean	45.70		47.00		44.85	
Standard Deviation	9.91		8.83		9.42	

Table 22

Frequency Distributions for French Cooperative Reading

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(50 max.)						
47	3	99.3			3	99.6
46	1	99			1	99.5
45	4	98	1	99.8	5	99
44	2	98	3	99	5	98
43	4	97	1	99	5	98
42	4	96	4	98	8	97
41	3	95	3	97	6	96
40	11	92	4	96	15	94
39	5	91	10	94	15	92
38	4	90	3	93	7	91
37	7	88	8	91	15	89
36	5	87	9	89	14	88
35	6	85	9	86	15	86
34	16	81	23	81	39	81
33	9	79	8	79	17	79
32	20	74	14	75	34	75
31	16	70	27	69	43	69
30	28	63	16	65	44	64
29	21	58	18	60	39	59
28	19	53	33	52	52	53
27	22	48	20	47	42	48
26	20	43	20	42	40	43
25	35	34	27	35	62	35
24	15	31	18	31	33	31
23	24	25	17	27	41	26
22	17	21	18	22	35	21
21	16	17	17	18	33	17
20	10	14	12	15	22	15
19	9	12	15	11	24	12
18	9	10	11	9	20	9
17	10	7	4	8	14	7
16	10	5	12	5	22	5
15	5	3	6	3	11	3
14	4	2	8	1	12	2
13	3	2		1	3	1
12	2	1		1	2	1
11	1	1	3	0.5	4	0.7
10	1	0.7	1	0.2	2	0.5
8		0.7	1		1	0.4
6	1	0.5			1	0.2
0	2				2	
Number of Students	404		404		808	
Mean	27.25		27.01		27.13	
Standard Deviation	7.59		6.95		7.28	

Table 23

Frequency Distributions for French Proficiency Reading

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(50 max.)						
39	1	99.8			1	99.9
37		99.8	1	99.8	1	99.8
35	1	99.5		99.8	1	99.6
34	1	99.3		99.8	1	99.5
33	1	99		99.8	1	99.4
32	2	99	1	99.5	3	99
31	1	98	2	99	3	99
30	4	97	1	99	5	98
29	4	96	2	98	6	97
28	2	96	2	98	4	97
27	4	95	1	98	5	96
26	4	94	4	97	8	95
25	8	92	13	93	21	93
24	8	90	16	89	24	90
23	9	88	13	86	22	87
22	16	84	11	83	27	84
21	22	78	21	78	43	78
20	19	74	29	71	48	72
19	24	68	28	64	52	66
18	36	59	33	56	69	57
17	29	51	36	47	65	49
16	40	42	25	41	65	41
15	36	33	26	34	62	34
14	26	26	32	26	58	26
13	32	18	25	20	57	19
12	20	13	22	15	42	14
11	19	9	25	9	44	9
10	12	6	15	5	27	5
9	8	4	10	2	18	3
8	9	1	4	1	13	1
7	4	0.5	4	0.5	8	0.5
6	1	0.2	1	0.2	2	0.2
5		0.2	1		1	0.1
4	1				1	
Number of Students	404		404		808	
Mean	16.93		16.90		16.92	
Standard Deviation	5.25		4.94		5.10	

Table 24

Frequency Distributions for French Cooperative Writing

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(100 max.)						
90-92	1	99.6			1	99.8
87-89		99.6				99.8
84-86		99.6				99.8
81-83		99.6				99.8
78-80		99.6				99.8
75-77		99.6				99.8
72-74	3	98	6	98	9	98
69-71	2	97	3	96	5	97
66-68	11	93	6	94	17	94
63-65	6	91	17	87	23	89
60-62	7	88	12	82	19	85
57-59	10	84	13	77	23	80
54-56	10	80	14	71	24	75
51-53	21	71	11	67	32	69
48-50	10	67	12	62	22	64
45-47	19	59	19	54	38	57
42-44	16	53	12	49	28	51
39-41	17	46	21	41	38	43
36-38	28	35	16	34	44	34
33-35	18	27	18	27	36	27
30-32	14	22	12	22	26	22
27-29	10	17	10	18	20	18
24-26	8	14	16	11	24	13
21-23	13	9	9	8	22	8
18-20	4	7	8	4	12	6
15-17	9	4	7	2	16	3
12-14	2	3	2	0.8	4	2
9-11	5	0.8	2		7	0.4
6- 8	2				2	
Number of Students	246		246		492	
Mean	41.11		42.92		42.01	
Standard Deviation	15.07		16.25+		15.19	

Table 25

Frequency Distributions for French Proficiency Writing

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(60 max.)						
38	1	99.6			1	99.8
34		99.6	1	99.6	1	99.6
28	2	99		99.6	2	99.2
26	2	98	2	99	4	98
25		98	1	98	1	98
24		98	2	98	2	98
23	3	97	3	96	6	97
22	3	96	2	96	5	96
21	6	93	5	94	11	93
20	5	91	5	91	10	91
19	9	87	6	89	15	88
18	8	84	11	85	19	84
17	8	81	9	81	17	81
16	10	77	9	77	19	77
15	13	72	12	72	25	72
14	13	66	12	67	25	67
13	20	58	16	61	36	60
12	13	53	16	54	29	54
11	17	46	23	45	40	46
10	12	41	18	38	30	39
9	19	33	12	33	31	33
8	15	27	16	26	31	27
7	11	23	16	20	27	21
6	14	17	15	14	29	15
5	9	13	8	11	17	12
4	13	8	15	4	28	6
3	9	4	5	2	14	3
2	8	1	3	1	11	1
1	3		2	0.4	5	0.2
0			1		1	
Number of Students	246		246		492	
Mean	11.44		11.50		11.47	
Standard Deviation	5.94		5.57		5.76	

Table 26

Frequency Distributions for German Cooperative Listening

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(40 max.)						
					1	99.6
40	1	99.2			2	99
39	1	98	1	99.2	1	98
38	1	97		99.2	6	96
37	3	95	3	97	2	95
36		95	2	95	5	93
35	1	94	4	92	1	92
34	1	93		92	5	90
33	2	92	3	89	7	87
32	6	86	1	88	6	85
31	2	85	4	85	8	81
30	3	82	5	81	4	80
29	1	81	3	78	9	76
28	6	76	3	75	11	71
27	5	72	6	70	9	67
26	5	68	4	67	12	62
25	11	58	1	66	11	58
24	3	56	8	59	14	52
23	7	50	7	53	10	47
22	5	46	5	49	10	43
21	5	42	5	45	9	39
20	5	37	4	42	11	35
19	6	32	5	37	21	26
18	10	24	11	28	13	20
17	7	18	6	23	14	14
16	6	13	8	16	8	11
15	4	9	4	13	7	8
14	1	8	6	8	6	6
13	3	6	3	5	5	3
12	3	3	2	3	3	2
11	1	3	2	2	2	1
10	1	2	1	0.8	2	0.4
9	1	0.8	1		1	
6	1					
Number of Students	118		118		236	
Mean	22.76		22.44		22.60	
Standard Deviation	6.95		7.07		7.01	

Table 27

Frequency Distributions for German Proficiency Listening

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(36 max.)						
36	2	98			2	99.2
34	1	97			1	99
29	1	97			1	98
27	1	96	1	99.2	2	97
26	3	93	1	98	4	96
24	1	92		98	1	95
22	1	92	3	96	4	94
21	1	91	1	95	2	93
20	4	87	2	93	6	90
19	2	86	4	90	6	88
18	4	82	2	88	6	85
17	6	77	1	87	7	82
16	6	72	6	82	12	77
15	4	69	5	78	9	73
14	9	61	8	71	17	66
13	9	53	10	63	19	58
12	9	46	15	50	24	48
11	10	37	15	37	25	37
10	11	28	9	30	20	29
9	9	20	6	25	15	22
8	7	14	13	14	20	14
7	3	12	8	7	11	9
6	6	7	5	3	11	5
5	4	3	2	0.8	6	2
4	3	0.8	1		4	0.4
3	1				1	
Number of Students	118		118		236	
Mean	13.18		11.99		12.58	
Standard Deviation	6.33		4.38		5.48	

Table 28

Frequency Distributions for German Cooperative Speaking

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(82 max.)						
82			1	98	1	99.2
80-81				98		99.2
78-79				98		99.2
76-77			2	95	2	98
74-75			1	94	1	97
72-73			1	92	1	96
70-71				92		96
68-69				92		96
66-67	1	98		92	1	95
64-65		98	2	89	2	94
62-63		98		89		94
60-61	1	97	2	86	3	92
58-59	1	95	2	83	3	89
56-57	2	92	1	82	3	87
54-55	2	89	5	74	7	82
52-53	3	85	1	72	4	78
50-51		85	2	69	2	77
48-49	4	78	7	58	11	68
46-47	2	75	9	45	11	60
44-45	5	68	1	43	6	55
42-43	9	54	4	37	13	45
40-41		54	5	29	5	42
38-39	7	43	2	26	9	35
36-37	5	35	3	22	8	28
34-35	8	23	5	14	13	18
32-33	4	17	2	11	6	14
30-31	4	11	1	9	5	10
28-29	4	5	2	6	6	5
26-27	1	3	1	5	2	4
24-25	2		2	2	4	0.8
22-23				2		0.8
20-21			1		1	
Number of Students	65		65		130	
Mean	40.32		46.37		43.35	
Standard Deviation	9.27		13.12		11.75	

Table 29

Frequency Distributions for German Proficiency Speaking

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(105 max.)						
88-89			1	98	1	99.2
86-87				98		99.2
84-85			2	95	2	98
82-83			1	94	1	97
80-81				94		97
78-79				94		97
76-77	2	97	1	92	3	95
74-75		97	2	89	2	93
72-73	1	95	1	88	2	92
70-71	1	94	2	85	3	89
68-69	3	89	3	80	6	85
66-67	2	86	2	77	4	82
64-65	1	85	3	72	4	78
62-63	4	78	5	65	9	72
60-61	5	71	5	57	10	64
58-59	4	65	1	55	5	60
56-57	7	54	4	49	11	52
54-55	3	49	4	43	7	46
52-53	3	45	3	38	6	42
50-51	3	40	2	35	5	38
48-49	3	35	5	28	8	32
46-47	4	29	5	20	9	25
44-45	2	26	3	15	5	21
42-43	4	20	2	12	6	16
40-41	1	18	2	9	3	14
38-39	1	17	1	8	2	12
36-37	4	11	2	5	6	8
34-35	4	5	1	3	5	4
32-33		5		3		4
30-31		5	1	2	1	3
28-29		5		2		3
26-27	1	3		2	1	2
24-25	1	2	1		2	0.8
22-23	1				1	
Number of Students	65		65		130	
Mean	52.05		56.29		54.17	
Standard Deviation	12.34		13.40		13.05	

Table 30

Frequency Distributions for German Cooperative Reading

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(50 max.)						
46	3	96			3	98
42	2	94			2	97
40	2	91			2	96
39	1	90			1	95
38	1	89			1	94
37		89	1	99	1	94
36	1	88	1	98	2	93
35	2	85		98	2	91
34	2	83	1	96	3	89
33	1	81	1	95	2	88
32	2	79		95	2	87
31	7	70	1	94	8	82
30	2	68	2	91	4	79
29	5	61	1	90	6	76
28	3	58		90	3	74
27	3	54	1	89	4	71
26	3	50	1	88	4	69
25	4	45	3	84	7	64
24	4	40	5	78	9	59
23		40	5	71	5	56
22	3	36	3	68	6	52
21	3	33	6	60	9	46
20	1	31	4	55	5	43
19	4	26	3	51	7	39
18	6	19	6	44	12	31
17	2	16	6	36	8	26
16		16	2	34	2	25
15	3	13	8	24	11	18
14	3	9	4	19	7	14
13	1	8	2	16	3	12
12	3	4	2	14	5	9
11	1	3	1	13	2	8
10	1	1	2	10	3	6
9		1	1	9	1	5
8		1	3	5	3	3
6	1		2	3	3	1
5			2		2	
Number of Students	80		80		160	
Mean	25.51		18.83		22.17	
Standard Deviation	9.03		6.95		8.73	

Table 31

Frequency Distributions for German Proficiency Reading

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(50 max.)						
46	1	99			1	99.4
42	1	98			1	99
41	1	96			1	98
35	1	95			1	98
33	1	94			1	97
31		94	1	99	1	96
29	1	93		99	1	96
28	3	89		99	3	94
27	4	84		99	4	91
26	4	79	1	98	5	88
25		79	2	95	2	87
24	3	75	1	94	4	84
22	2	73	1	93	3	83
21	2	70		93	2	81
20	5	64	3	89	8	76
19	3	60	3	85	6	73
18	4	55	6	78	10	66
17	6	48	4	73	10	60
16	7	39	3	69	10	54
15	3	35	4	64	7	49
14	5	29	7	55	12	42
13	5	23	8	45	13	34
12	5	16	11	31	16	24
11	1	15	4	26	5	21
10	2	13	9	15	11	14
9	2	10	2	13	4	11
8	5	4	6	5	11	4
7		4	1	4	1	4
6	2	1		4	2	3
5		1	2	1	2	1
4	1			1	1	0.6
3			1		1	
Number of Students	80		80		160	
Mean	18.35		13.85		16.10	
Standard Deviation	8.17		5.00		7.14	

Table 32

Frequency Distributions for German Cooperative Writing

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(100 max.)						
93-95			1	99	1	99.5
90-92	2	98	2	97	4	98
87-89		98	2	95	2	97
84-86	1	97	2	93	3	95
81-83	2	95	3	90	5	93
78-80	2	93	5	85	7	89
75-77	3	90	3	82	6	86
72-74	5	85	5	77	10	81
69-71	5	80	10	67	15	74
66-68	4	76	5	62	9	69
63-65	8	68	11	51	19	60
60-62	10	58	8	44	18	51
57-59	10	49	6	38	16	43
54-56	12	37	5	33	17	35
51-53	10	27	10	23	20	25
48-50	7	20	4	19	11	19
45-47	7	13	6	13	13	13
42-44	2	11	3	10	5	10
39-41	2	9	2	8	4	8
36-38	1	8	4	4	5	6
33-35	4	4		4	4	4
30-32	1	3		4	1	3
27-29	1	2	2	2	3	2
24-26		2	1	1	1	1
21-23	1	1		1	1	1
18-20		1		1		1
15-17	1		1		2	
Number of Students	101		101		202	
Mean	57.21		60.90		59.05	
Standard Deviation	13.83		15.27		14.69	

Table 33

Frequency Distributions for German Proficiency Writing

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(60 max.)						
52	1	99			1	99.5
47		99	1	99	1	99
42		99	1	98	1	99
41		99	1	97	1	98
38	1	98		97	1	98
37		98	1	96	1	97
35	1	97	1	95	2	96
34	1	96	1	94	2	95
33		96	2	92	2	94
32		96	1	91	1	94
31	1	95		91	1	93
29	1	94	1	90	2	92
28		94	2	88	2	91
27		94	1	87	1	91
26	1	93	1	86	2	90
25	1	92	4	82	5	87
24	1	91	3	79	4	85
23	2	89	2	77	4	83
22	1	88	3	74	4	81
21		88	1	73	1	81
20	1	87	2	71	3	79
19	3	84	3	68	6	76
18	2	82	2	66	4	74
17	2	80	2	64	4	72
16	1	79	3	61	4	70
15		79	6	55	6	67
14	3	76	6	50	9	63
13	7	69	5	45	12	57
12	5	64	4	41	9	52
11	3	61	6	35	9	48
10	4	57	6	29	10	43
9	7	50	3	26	10	38
8	14	37	5	21	19	29
7	4	33	7	14	11	23
6	8	25	5	9	13	17
5	6	19	3	6	9	12
4	5	14	2	4	7	9
3	7	7	2	2	9	4
2	4	3	2		6	1
1	3				3	
Number of Students	101		101		202	
Mean	11.13		15.68		13.41	
Standard Deviation	8.74		9.51		9.41	

Table 34

Frequency Distributions for Spanish Cooperative Listening

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(40 max.)						
39			1	99.5	1	99.8
37			1	99	1	99.5
36	2	99	2	98	4	99
35		99	2	97	2	98
34	3	98	1	97	4	97
33	2	97	7	93	9	95
32	3	95	4	91	7	93
31	1	95	5	89	6	92
30	5	92	5	86	10	89
29	4	90	8	82	12	86
28	4	88	2	81	6	85
27	6	85	1	81	7	83
26	10	80	12	75	22	78
25	11	75	4	73	15	74
24	10	70	10	68	20	69
23	15	63	16	60	31	62
22	10	58	11	55	21	57
21	11	53	16	47	27	50
20	16	45	11	42	27	43
19	16	37	19	33	35	35
18	14	30	11	27	25	29
17	12	24	11	22	23	23
16	7	21	10	17	17	19
15	15	14	8	13	23	13
14	9	9	11	8	20	9
13	8	5	6	5	14	5
12	5	3	3	3	8	3
11	3	1	3	2	6	2
10		1	1	1	1	1
9	1	1	1	1	2	1
7		1	1	0.5	1	0.7
6	1	0.5			1	0.5
5	1		1		2	
Number of Students	205		205		410	
Mean	20.67		21.50		21.09	
Standard Deviation	5.73		6.32		6.05	

Table 35

Frequency Distributions for Spanish Proficiency Listening

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(36 max.)						
28			1	99.5	1	99.8
26			1	99	1	99.5
25	4	98		99	4	99
24	5	96	3	98	8	97
23	3	94	1	97	4	96
22	1	94	1	97	2	95
21	2	93	3	95	5	94
20	5	90	8	91	13	91
19	7	87	3	90	10	88
18	11	81	14	83	25	82
17	13	75	6	80	19	78
16	16	67	16	72	32	70
15	19	58	18	63	37	61
14	19	49	17	55	36	52
13	16	41	23	44	39	42
12	21	31	30	29	51	30
11	21	20	19	20	40	20
10	19	11	10	15	29	13
9	7	8	16	7	23	8
8	12	2	9	3	21	2
7	1	1	3	1	4	1
6	2	0.5		1	2	1
5	1		2	0.5	3	
3			1		1	
Number of Students	205		205		410	
Mean	14.03		13.60		13.81	
Standard Deviation	4.18		3.98		4.09	

Table 36

Frequency Distributions for Spanish Cooperative Speaking

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(82 max.)						
80-81			1	99.5	1	99.7
78-79				99.5		99.7
76-77				99.5		99.7
74-75	1	99.5	2	98	3	99
72-73		99.5	1	98	1	99
70-71		99.5	1	97	1	98
68-69		99.5		97		98
66-67	1	99	4	95	5	97
64-65	4	97	6	92	10	94
62-63	3	95	6	89	9	92
60-61	4	93	7	85	11	89
58-59	8	89	5	82	13	85
56-57	7	85	10	77	17	81
54-55	10	79	12	70	22	75
52-53	14	72	11	64	25	68
50-51	14	64	19	54	33	59
48-49	18	54	7	50	25	52
46-47	18	45	15	42	33	43
44-45	17	35	16	33	33	34
42-43	16	27	16	24	32	26
40-41	11	21	10	19	21	20
38-39	14	13	10	14	24	13
36-37	4	11	6	10	10	11
34-35	9	6	6	7	15	7
32-33	5	3	6	4	11	4
30-31	1	3	4	2	5	2
28-29		3	2	0.5	2	2
26-27	3	1	1		4	0.5
24-25	1	0.5			1	0.3
22-23		0.5				0.3
20-21		0.5				0.3
18-19		0.5				0.3
16-17	1				1	
Number of Students	184		184		368	
Mean	46.64		48.48		47.56	
Standard Deviation	8.81		10.16		9.55	

Table 37

Frequency Distributions for Spanish Proficiency Speaking

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(105 max.)						
74-75			1	99.5	1	99.7
72-73				99.5		99.7
70-71	1	99	2	98	3	99
68-69	2	98	4	96	6	97
66-67	3	97	1	96	4	96
64-65	4	95	7	92	11	93
62-63	4	92	7	88	11	90
60-61	14	85	12	82	26	83
58-59	9	80	12	75	21	77
56-57	8	76	19	65	27	70
54-55	5	73	13	58	18	65
52-53	16	64	14	50	30	57
50-51	12	58	10	45	22	51
48-49	8	53	15	36	23	45
46-47	19	43	10	31	29	37
44-45	15	35	8	27	23	31
42-43	19	24	13	20	32	22
40-41	15	16	7	16	22	16
38-39	11	10	16	7	27	9
36-37	4	8	6	4	10	6
34-35	9	3	4	2	13	2
32-33	4	1	2	0.5	6	0.8
30-31	1	0.5	1		2	0.3
28-29	1				1	
Number of Students	184		184		368	
Mean	48.24		50.74		49.49	
Standard Deviation	9.08		9.25		9.25	

Table 38

Frequency Distributions for Spanish Cooperative Reading

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(50 max.)						
44	1	99.5			1	99.8
43	1	99	1	99.5	2	99.3
42	1	99		99.5	1	99
41		99	1	99	1	99
40	6	96	1	99	7	97
39		96	1	98	1	97
38	4	94		98	4	96
37	3	92	4	96	7	94
36	2	91	4	94	6	93
35	5	89	3	93	8	91
34	4	87	3	91	7	89
33	4	85	7	88	11	86
32	5	82	3	86	8	84
31	7	79	4	84	11	82
30	7	75	5	82	12	79
29	11	70	5	79	16	75
28	7	67	11	74	18	70
27	12	61	3	73	15	67
26	7	57	10	68	17	63
25	8	53	10	63	18	58
24	11	48	7	59	18	54
23	10	43	16	51	26	47
22	7	40	10	47	17	43
21	14	33	5	44	19	38
20	9	28	8	40	17	34
19	12	23	8	36	20	29
18	10	18	10	31	20	25
17	8	14	9	27	17	20
16	4	12	8	23	12	17
15	6	9	10	18	16	13
14	6	6	9	14	15	10
13	2	5	4	12	6	8
12	2	4	6	9	8	6
11	2	3	4	7	6	5
10	1	2	2	6	3	4
9	2	1	3	4	5	3
8	2	0.5	2	3	4	2
7		0.5	1	3	1	2
6		0.5	1	2	1	1
5		0.5	1	2	1	1
2		0.5	1	1	1	1
1		0.5	1	1	1	0.7
0	1		2		3	
Number of Students	204		204		408	
Mean	24.39		21.91		23.15	
Standard Deviation	7.75		8.24		8.09	

Table 39

Frequency Distributions for Spanish Proficiency Reading

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(50 max.)						
30	1	99.5			1	99.8
29		99.5	1	99.5	1	99.5
28		99.5	1	99	1	99.3
27	1	99	1	99	2	99
26	1	99	1	98	2	98
25	5	96	2	97	7	97
24		96	3	96	3	96
23	7	93	6	93	13	93
22	2	92	4	91	6	91
21	8	88	7	87	15	88
20	10	83	13	81	23	82
19	11	77	17	73	28	75
18	20	68	17	64	37	66
17	16	60	24	52	40	56
16	13	53	10	48	23	50
15	16	46	23	36	39	41
14	26	33	15	29	41	31
13	12	27	11	24	23	25
12	19	18	20	14	39	16
11	9	13	11	8	20	11
10	6	10	7	5	13	8
9	7	7	2	4	9	5
8	10	2	1	3	11	3
7	2	1	5	1	7	1
6		1	2		2	0.5
5	1	0.5			1	0.2
0	1				1	
Number of Students	204		204		408	
Mean	15.39		16.00		15.69	
Standard Deviation	4.54		4.29		4.43	

Table 40

Frequency Distributions for Spanish Cooperative Writing

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(100 max.)						
90-91	1	99.5	3	99	4	99
88-89	2	99	3	97	5	98
86-87	3	97		97	3	97
84-85	3	96	1	97	4	96
82-83	1	95	3	95	4	95
80-81	2	94	6	92	8	93
78-79	5	92	2	91	7	91
76-77	4	90	6	88	10	89
74-75	6	87	6	85	12	86
72-73	4	85	1	85	5	85
70-71	5	82	6	82	11	82
68-69	6	79	8	78	14	79
66-67	8	75	7	74	15	75
64-65	12	69	8	70	20	70
62-63	16	62	8	67	24	64
60-61	11	56	10	62	21	59
58-59	13	50	7	58	20	54
56-57	6	47	14	51	20	49
54-55	10	42	12	45	22	44
52-53	15	34	15	38	30	36
50-51	14	28	7	34	21	31
48-49	6	25	14	28	20	26
46-47	5	22	4	26	9	24
44-45	7	19	8	22	15	20
42-43	3	17	3	20	6	19
40-41	10	12	5	18	15	15
38-39	4	10	4	16	8	13
36-37	7	7	4	14	11	10
34-35	3	5	9	9	12	7
32-33	1	5	4	7	5	6
30-31	3	3	5	5	8	4
28-29	4	1	3	3	7	2
26-27		1	3	2	3	2
24-25	1	1	1	1	2	1
22-23		1		1		1
20-21	2		1	1	3	0.5
18-19				1		0.5
16-17			1	0.5	1	0.2
Below 10			1		1	
Number of Students	203		203		406	
Mean	56.77		55.26		56.01	
Standard Deviation	14.39		15.90		15.18	

Table 41

Frequency Distributions for Spanish Proficiency Writing

Raw Score	Group I		Group II		Total Group	
	Frequency	Per Cent Below	Frequency	Per Cent Below	Frequency	Per Cent Below
(60 max.)						
36			1	99.5	1	99.8
35	1	99.5		99.5	1	99.5
34	1	99	1	99	1	99
33		99		99		99
32		99		99		99
31	1	99	1	99	2	99
30		99		99		99
29	1	98	1	98	2	98
28	1	98	2	97	3	97
27	8	94	3	96	11	95
26	2	93	3	94	5	93
25	3	91	3	93	6	92
24	4	89	5	90	9	90
23	8	85	12	84	20	85
22	6	82	7	81	13	82
21	7	79	5	78	12	79
20	9	74	9	74	18	74
19	11	69	7	70	18	70
18	6	66	10	66	16	66
17	5	64	14	59	19	61
16	13	57	11	53	24	55
15	16	49	13	47	29	48
14	14	42	16	39	30	41
13	11	37	11	34	22	35
12	16	29	8	30	24	29
11	4	27	11	24	15	26
10	19	18	12	18	31	18
9	12	12	12	12	24	12
8	8	8	7	9	15	8
7	7	4	10	4	17	4
6	2	3	6	1	8	2
5	1	3	1	0.5	2	2
4	5	0.5		0.5	5	0.5
3	1		1		2	
Number of Students	203		203		406	
Mean	15.34		15.56		15.45	
Standard Deviation	6.26		6.11		6.18	

Table 42

Comparison of the Equating Samples with the Second-Year College General Norms Group on the MLA Cooperative Tests*

(Raw Scores with Corresponding Second-year College Percentile Ranks)

FRENCH:		Listening	Speaking	Reading	Writing
College Norms Group	M + 2σ	27.0 (94)	61.6 (95)	38.3 (95)	69.7 (95)
	M + 1σ	20.8 (84)	47.9 (80)	29.8 (84)	53.1 (84)
	Mean M	14.6 (57)	34.1 (57)	21.2 (55)	36.6 (55)
	M - 1σ	8.4 (9)	20.3 (9)	12.6 (11)	20.0 (14)
	M - 2σ	2.2 (0)	6.6 (0)	4.0 (0)	3.4 (0)
Equating Sample	M + 2σ	27.8 (95)	63.4 (96)	41.7 (97)	72.3 (98)
	M + 1σ	22.2 (87)	52.3 (90)	34.4 (91)	57.2 (87)
	Mean M	16.6 (68)	41.1 (69)	27.1 (77)	42.0 (63)
	M - 1σ	11.0 (28)	30.0 (48)	19.9 (50)	26.9 (29)
	M - 2σ	5.5 (2)	18.9 (6)	12.6 (11)	11.7 (4)

GERMAN:		Listening	Speaking	Reading	Writing
College Norms Group	M + 2σ	33.0 (96)	50.2 (96)	34.9 (95)	75.6 (97)
	M + 1σ	26.1 (80)	41.4 (78)	26.5 (82)	55.9 (81)
	Mean M	19.1 (53)	32.6 (49)	18.1 (55)	36.2 (53)
	M - 1σ	12.2 (13)	23.8 (17)	9.6 (13)	16.5 (20)
	M - 2σ	5.2 (0)	14.9 (0)	1.2 (0)	---- (0)
Equating Sample	M + 2σ	36.6 (99)	66.1(100)	38.3 (97)	88.2(100)
	M + 1σ	29.6 (89)	54.7(100)	30.2 (90)	73.6 (95)
	Mean M	22.6 (70)	43.3 (85)	22.2 (71)	59.1 (85)
	M - 1σ	15.6 (32)	32.0 (48)	14.1 (35)	44.5 (68)
	M - 2σ	8.6 (3)	20.6 (6)	6.0 (2)	29.9 (43)

SPANISH:		Listening	Speaking	Reading	Writing
College Norms Group	M + 2σ	35.5 (94)	69.4 (97)	38.9 (94)	85.2 (99)
	M + 1σ	27.1 (81)	56.4 (86)	29.0 (82)	65.7 (79)
	Mean M	18.7 (55)	43.5 (48)	19.1 (57)	46.2 (49)
	M - 1σ	10.3 (12)	30.5 (17)	9.3 (9)	26.7 (18)
	M - 2σ	1.9 (0)	17.5 (1)	---- (0)	7.3 (0)
Equating Sample	M + 2σ	33.2 (90)	66.6 (96)	39.1 (94)	86.3 (99)
	M + 1σ	27.1 (81)	57.1 (87)	31.1 (85)	71.2 (89)
	Mean M	21.1 (64)	47.6 (60)	23.1 (70)	56.0 (67)
	M - 1σ	15.0 (38)	38.1 (33)	15.1 (41)	40.9 (40)
	M - 2σ	9.0 (8)	28.5 (15)	7.1 (5)	25.7 (16)

*The statistics given in this table are in terms of raw scores and the corresponding percentile ranks of the second-year college General Norms groups. The information for the norms groups was taken from the Booklet of Norms for the MLA Cooperative Foreign Language Tests prepared in 1965.

Table 43

Comparison of the Performance of the Equating Samples with the National Norms Groups on the MLA Proficiency Tests*

(Converted scores with Corresponding National Percentile Ranks)

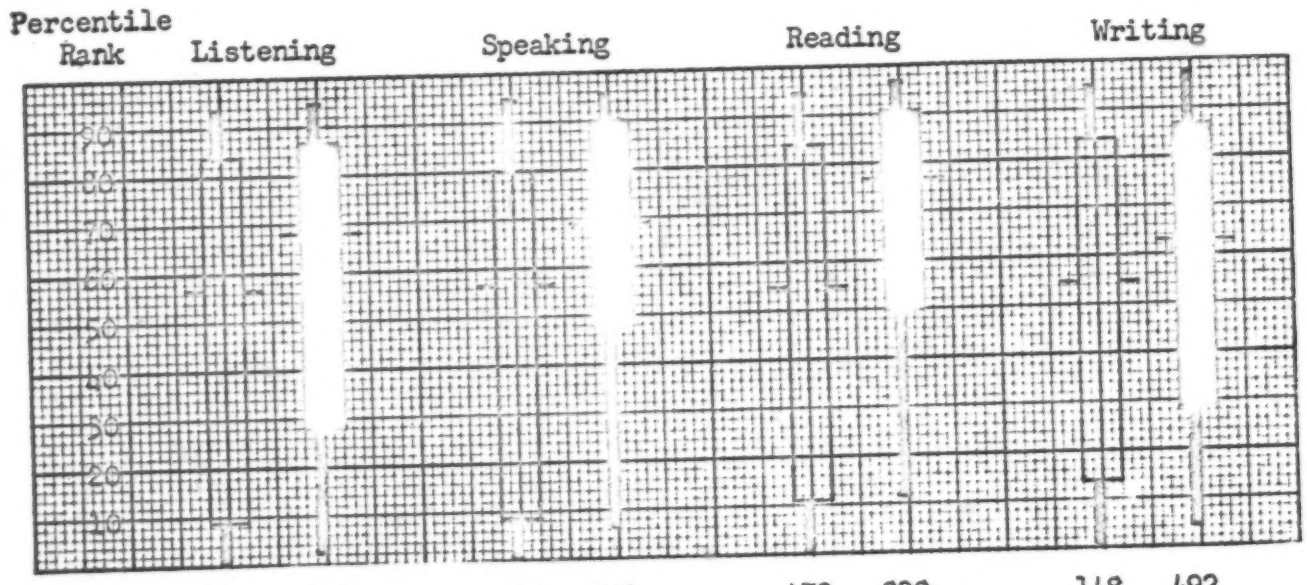
FRENCH:		Listening	Speaking	Reading	Writing
National Norms Group	M + 2σ	55.5 (98)	104.3 (96)	64.0 (96)	67.4 (97)
	M + 1σ	46.8 (77)	86.3 (83)	53.4 (80)	54.9 (81)
	Mean M	38.1 (54)	68.2 (53)	43.0 (54)	42.4 (51)
	M - 1σ	29.4 (13)	50.2 (16)	32.4 (15)	29.9 (17)
	M - 2σ	20.8 (0)	32.1 (0)	21.9 (0)	17.5 (0)
Equating Sample	M + 2σ	39.3 (58)	83.6 (79)	47.1 (66)	43.0 (53)
	M + 1σ	35.7 (46)	74.2 (65)	42.0 (51)	37.2 (37)
	Mean M	32.2 (29)	64.8 (45)	36.9 (32)	31.5 (21)
	M - 1σ	28.6 (10)	55.5 (25)	31.8 (13)	25.7 (7)
	M - 2σ	25.1 (2)	46.1 (10)	26.7 (2)	20.0 (0)

GERMAN:		Listening	Speaking	Reading	Writing
National Norms Group	M + 2σ	57.7(100)	115.0 (98)	69.2 (99)	79.7(100)
	M + 1σ	48.5 (77)	97.6 (83)	57.4 (80)	63.4 (79)
	Mean M	39.3 (52)	80.2 (49)	45.6 (53)	47.1 (50)
	M - 1σ	30.1 (15)	62.8 (15)	33.8 (17)	30.8 (20)
	M - 2σ	20.9 (0)	45.4 (2)	22.0 (0)	14.5 (0)
Equating Sample	M + 2σ	43.5 (63)	99.9 (86)	49.6 (63)	51.7 (59)
	M + 1σ	38.0 (49)	87.0 (65)	42.9 (45)	42.5 (42)
	Mean M	32.6 (30)	74.2 (35)	36.1 (24)	33.4 (25)
	M - 1σ	27.1 (5)	61.3 (13)	29.3 (5)	24.3 (8)
	M - 2σ	21.7 (0)	48.4 (4)	22.6 (0)	15.1 (0)

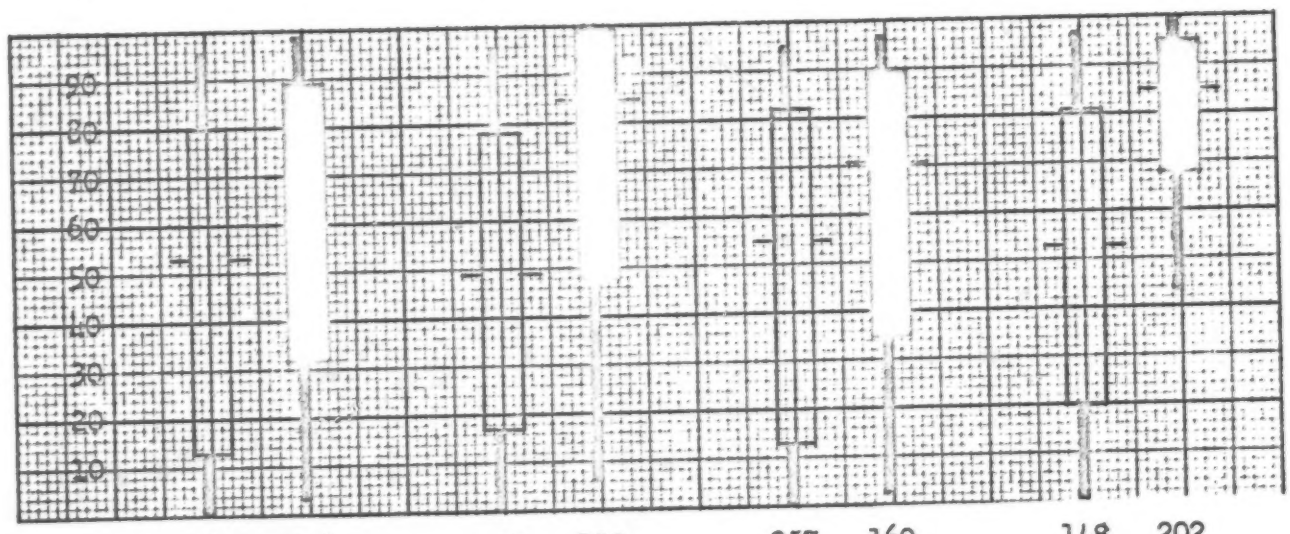
SPANISH:		Listening	Speaking	Reading	Writing
National Norms Group	M + 2σ	55.8 (99)	105.6 (96)	62.5 (96)	74.0 (99)
	M + 1σ	47.8 (77)	86.9 (83)	52.4 (81)	60.3 (80)
	Mean M	39.8 (51)	68.1 (53)	42.2 (52)	46.5 (50)
	M - 1σ	31.8 (16)	49.4 (16)	32.1 (15)	32.7 (18)
	M - 2σ	23.8 (0)	30.6 (0)	22.0 (0)	19.0 (0)
Equating Sample	M + 2σ	42.0 (59)	87.8 (84)	44.5 (60)	47.8 (53)
	M + 1σ	37.9 (44)	78.7 (72)	40.1 (45)	41.6 (38)
	Mean M	33.8 (26)	69.5 (55)	35.7 (29)	35.5 (24)
	M - 1σ	29.7 (8)	60.3 (36)	31.3 (13)	29.3 (11)
	M - 2σ	25.7 (1)	51.2 (18)	26.9 (2)	23.1 (2)

*The statistics given in this table are in terms of converted scores and the corresponding percentile ranks of the National Norms groups. The information for the National Norms groups was taken from the MLA Interpretation of Scores leaflet.

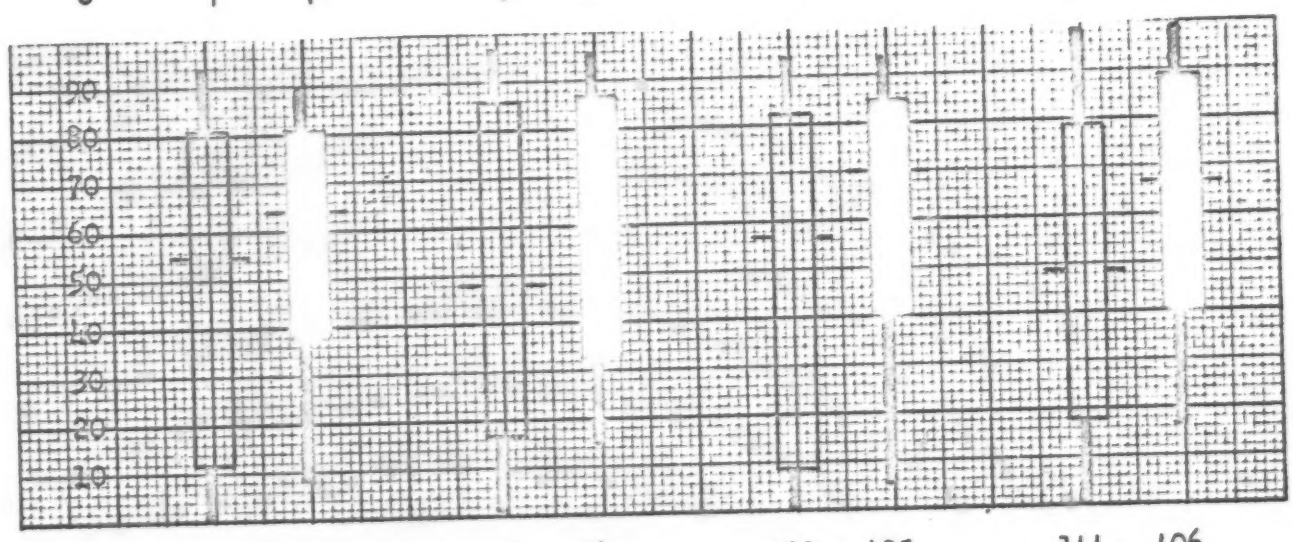
ure 1 - Comparison of the Equating Samples with the Second-Year College General Norms Groups on the MLA Cooperative Tests*



		Listening		Speaking		Reading		Writing	
FRENCH	N	379	806	87	482	472	808	148	492
	M	15	17	34	41	21	27	37	42
	σ	6	6	14	11	9	7	17	15



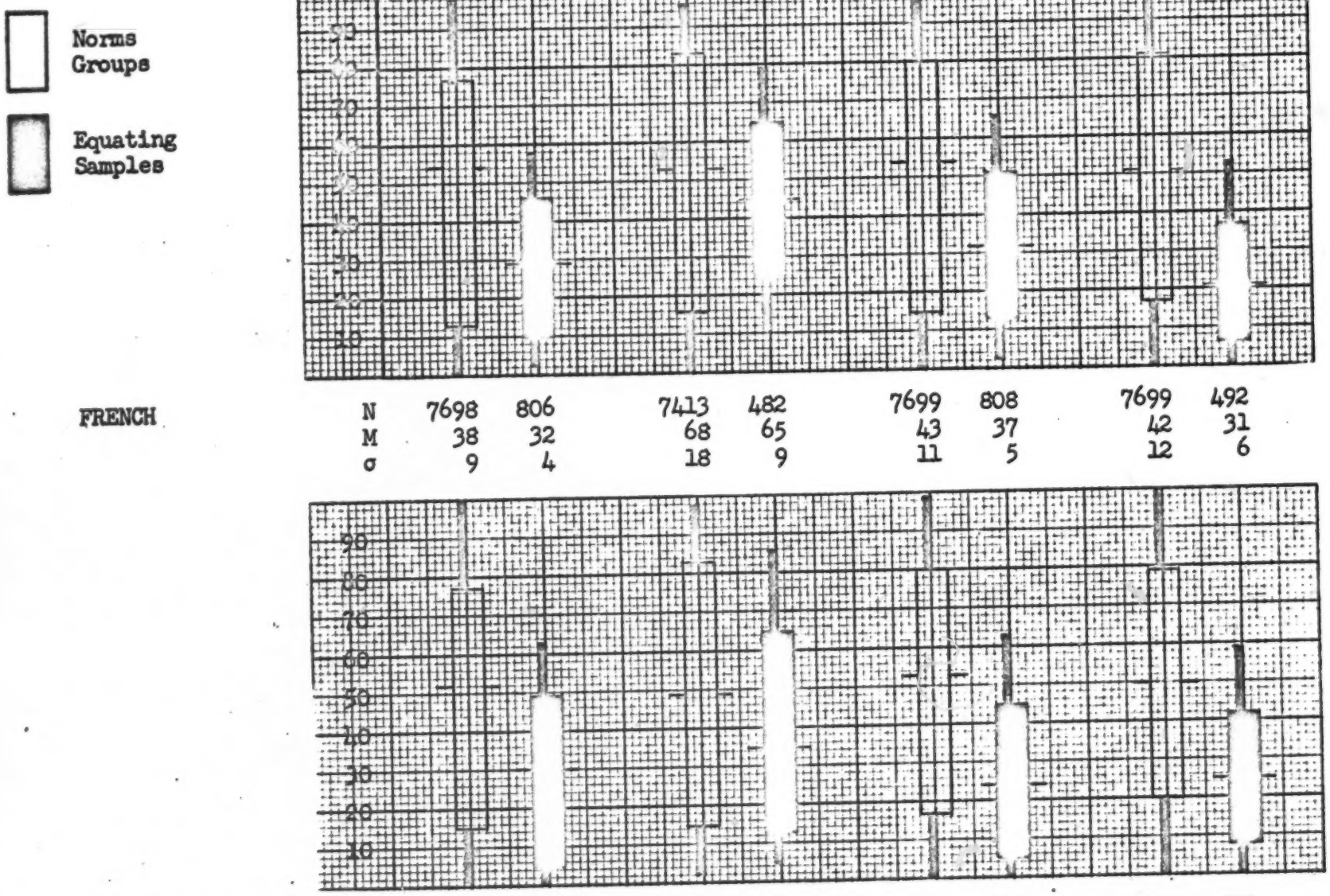
		Listening		Speaking		Reading		Writing	
GERMAN	N	269	236	50	130	357	160	148	202
	M	19	23	33	43	18	22	36	59
	σ	7	7	9	11	8	8	20	15



		Listening		Speaking		Reading		Writing	
SPANISH	N	416	410	172	368	430	408	144	406
	M	19	21	43	48	19	23	46	56
	σ	8	6	13	10	10	8	19	15

*Each bar shows five critical points: the mean, which is indicated by the horizontal line near the center of the bar, $M \pm 1\sigma$, which are the ends of the wide portion of the bar, and $M \pm 2\sigma$, which are the terminal points of the bar. The scale of reference is the percentile rank scale of the appropriate norms group.

Figure 2 - Comparison of the Equating Samples with the National Norms Groups on the MLA Proficiency Tests



		Listening		Speaking		Reading		Writing	
FRENCH	N	7698	806	7413	482	7699	808	7699	492
	M	38	32	68	65	43	37	42	31
	σ	9	4	18	9	11	5	12	6
GERMAN	N	1757	236	1733	130	1759	160	1759	202
	M	39	33	80	74	46	36	47	33
	σ	9	5	17	13	12	7	16	9
SPANISH	N	7390	410	7201	368	7381	408	7378	406
	M	40	34	68	69	42	36	46	35
	σ	8	4	19	9	10	4	14	6

Table 44

Description of the Equating Samples*

Sample Group		Course Level in Semesters			Student Status Year in College				Grade in Course				
		3	4	Other	1	2	3	4	A	B	C	D	E
French	I	281	120		183	129	58	30	48	132	156	54	11
Listening	II	260	144		207	125	46	26	50	143	152	52	7
(N = 806)	Total	541	264		390	254	104	56	98	275	308	106	18
French	I	154	84		114	69	34	19	27	68	103	35	5
Speaking	II	150	90		115	79	35	11	33	90	85	29	2
(N = 482)	Total	304	174		229	148	69	30	60	158	188	64	7
French	I	284	118		194	138	49	19	51	124	159	56	12
Reading	II	259	144		206	124	46	27	51	141	152	52	7
(N = 808)	Total	543	262		400	262	95	46	102	265	311	108	19
French	I	190	56		108	81	36	21	29	76	100	32	8
Writing	II	174	71		112	80	34	17	34	86	92	25	7
(N = 492)	Total	364	127		220	161	70	38	63	162	192	57	15
German	I	20		34	26	22	3	3	9	16	14	14	
Listening	II	59		1	7	37	13	2	14	21	22	3	
(N = 236)	Total	79		35	33	59	26	5	23	37	36	17	
German	I	30	7	21	13	27	13	5	12	22	20	2	2
Speaking	II	30	4	13	14	23	6	4	13	13	12	6	1
(N = 130)	Total	60	11	34	27	50	19	9	25	35	32	8	3
German	I	29	4		4	22	2	5	12	10	9	1	1
Reading	II	2		29	12	12	6	1	3	8	12	5	2
(N = 160)	Total	31	4	29	16	34	8	5	15	18	21	6	3
German	I	37		50	38	37	7	5	11	27	29	15	4
Writing	II	73	4	1	11	51	14	1	21	25	26	4	-
(N = 202)	Total	110	4	51	49	88	21	6	32	52	55	19	4
Spanish	I	133	71		62	93	28	21	29	62	73	29	10
Listening	II	127	77		70	90	30	12	29	56	70	39	9
(N = 410)	Total	260	148		132	183	58	33	58	118	143	68	19
Spanish	I	120	63		49	87	32	14	20	46	67	39	10
Speaking	II	116	67		64	83	22	13	23	59	66	24	8
(N = 368)	Total	236	130		113	170	54	27	43	105	133	63	18
Spanish	I	130	73		60	93	30	20	29	62	75	28	8
Reading	II	127	77		70	90	29	13	29	56	70	40	9
(N = 408)	Total	257	150		130	183	59	33	58	118	145	68	17
Spanish	I	119	83		68	85	30	18	25	58	78	30	10
Writing	II	136	65		61	90	31	18	28	56	68	39	8
(N = 406)	Total	255	148		129	175	61	36	53	114	146	69	18

*Complete information was not available for every case used in the equating samples. Categories other than those used were not included because the counts were too low to be of any significance. Counts for German Reading and German Listening do not include the Hofstra cases.